

# CERTIFICATE PROGRAMS

## ACCOUNTING – FINANCE

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This program is designed for those who want a good understanding of the current principles and practices in accounting–finance in Canada.

For those planning a career in the field, this certificate can lead to accreditation from a professional association. For further details, see CA, CGA, and CMA information found in the online version of this certificate at [www.ryerson.ca/ce](http://www.ryerson.ca/ce).

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status with experience in business.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. After completion of the six required courses, students then select a further two courses from the electives. Up to four course credits may be granted on the basis of courses successfully completed at other institutions.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate

requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses

- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CACC 410 Accounting: Management Accounting for Accounting Majors
- ▶ CACC 414 Accounting: Intermediate Accounting I
- ▶ CACC 514 Accounting: Intermediate Accounting II
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II

### Electives (select two)

- ▶ CACC 504 Accounting: Accounting Cases and Concepts I
- ▶ CACC 507 Accounting: Accounting for Managers
- ▶ CACC 521 Accounting: Auditing
- ▶ CACC 522 Accounting: Taxation for Managers and Financial Planners
- ▶ CACC 607 Accounting: Accounting for Small Business
- ▶ CACC 621 Accounting: Internal Auditing
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CLAW 122 Law: Business Law
- ▶ CQMS 102 Quantitative Methods: Business Statistics I

*Note: Some of the courses in the Accounting – Finance certificate program may qualify for exemption in the Chartered Accountants Education Program, Certified General Accountants Association of Ontario, or the CMA Canada programs. For more details, see Professional Designations on the website at [www.ryerson.ca/ce](http://www.ryerson.ca/ce).*

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CACC 410 Accounting: Management Accounting for Accounting Majors
- ▶ CACC 414 Accounting: Intermediate Accounting I
- ▶ CACC 514 Accounting: Intermediate Accounting II
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CLAW 122 Law: Business Law
- ▶ CQMS 102 Quantitative Methods: Business Statistics I

# ADVANCED SAFETY MANAGEMENT

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program in Advanced Safety Management was developed in cooperation with the Ryerson School of Occupational and Public Health. This is a unique offering of safety management courses that are part of the Bachelor of Applied Science degree in the Occupational Health and Safety option within the School of Occupational and Public Health. It is applicable to all types of industries, and is designed for those individuals who have completed Ryerson's Certificate in Occupational Health and Safety, or equivalent, and wish to expand their knowledge base and improve their skills.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/ohs](http://www.ryerson.ca/ce/ohs).

For related career information, please visit Industry Overview.

## Admission Requirements

Option 1: Successful completion of Ryerson Certificate in Occupational Health and Safety or its equivalent.

OR

Option 2: OSSD with six OAC credits or Grade 12 U or M credits, or equivalent, or mature student status, and five years of professional experience in a field relevant to occupational health and safety, plus successful completion of these courses:

- ▶ COHS 208 Occupational Health: Occupational Health and Safety Law
- ▶ COHS 718 Occupational Health: Systems Management I

*Note: Students who successfully apply for admission to the degree program will be permitted advanced standing in the degree program for only those courses that they have successfully completed in either of these two certificate programs. Therefore, students who intend to pursue the degree program should choose Option 1 above.*

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of the eight required courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ COHS 323 Occupational Health: Accident Theory and Analysis
- ▶ COHS 516 Occupational Health: Ergonomics
- ▶ COHS 523 Occupational Health: Safety Evaluation Techniques
- ▶ COHS 623 Occupational Health: Safety Control Methods
- ▶ COHS 723 Occupational Health: Sectoral Applications I
- ▶ COHS 818 Occupational Health: Systems Management II
- ▶ COHS 823 Occupational Health: Sectoral Applications II
- ▶ COHS 833 Occupational Health: Fire Safety Management

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ COHS 323 Occupational Health: Accident Theory and Analysis
- ▶ COHS 516 Occupational Health: Ergonomics
- ▶ COHS 523 Occupational Health: Safety Evaluation Techniques
- ▶ COHS 623 Occupational Health: Safety Control Methods
- ▶ COHS 723 Occupational Health: Sectoral Applications I
- ▶ COHS 818 Occupational Health: Systems Management II
- ▶ COHS 823 Occupational Health: Sectoral Applications II
- ▶ COHS 833 Occupational Health: Fire Safety Management
- ▶ COHS 208 Occupational Health: Occupational Health and Safety Law
- ▶ COHS 718 Occupational Health: Systems Management I

# ADVANCING THE AODA: PRINCIPLES AND PRACTICES OF ACCESSIBILITY

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate combines theory with the development and application of skills for students who wish to make contributions to policy and organizational change in areas impacted by the Accessibility for Ontarians with Disabilities Act (AODA). Potential students include those in occupations that address or that should be addressing accessibility issues in public sector, private and not-for-profit sector organizations with obligations under the AODA.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/aodacertificate](http://www.ryerson.ca/ce/aodacertificate).

## Admission Requirements

OSSD with six Grade 12 U, including Grade 12 U or M credits, or equivalent, or mature student status with relevant work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer

being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence: CDST 501, CINT 902, or CSWP 921; CDST 506; Electives - Group A (one selection); Electives - Group B (two selections); and CVDS 200 (required capstone course).

## Required Courses

Students may select only one of CDST 501, CINT 902, or CSWP 921.

- ▶ CDST 501 Disability Studies: Rethinking Disability
- ▶ CDST 506 Disability Studies: Making Ontario Accessible
- ▶ CINT 902 Interdisciplinary Studies: Disability Issues
- ▶ CSWP 921 Social Work: Disability Issues and Social Work Practice
- ▶ CVDS 200 Disability Studies: AODA Capstone Synthesis

## Electives (select a total of three courses)

### Electives - Group A (select one)

Ethics and Social Justice Stream

- ▶ CDST 500 Disability Studies: A History of Madness
- ▶ CDST 504 Disability Studies: Mad People's History
- ▶ CDST 604 Disability Studies: Current Topics in Disability II
- ▶ CDST 725 Disability Studies: The Politics and Practice of Interventions
- ▶ CDST 727 Disability Studies: Leadership for Social Action
- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 400 Philosophy: Human Rights and Justice
- ▶ CPHL 507 Philosophy: Ethics and Disability
- ▶ CPHL 509 Philosophy: Bioethics

Organizational Behaviour and Change Management Stream

- ▶ CINT 913 Nonprofit: Leading Through Change
- ▶ CINT 907 Interdisciplinary Studies: Team Work for Community Services
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 650 Human Resources: Management of Change

Public Policy and Law Stream

- ▶ CDST 502 Disability Studies: Disability and the State
- ▶ CDST 603 Disability Studies: Disability and The Law
- ▶ CPHL 602 Philosophy: Health Care and Distributive Justice
- ▶ CSWP 402 Social Work: Social Policy and Social Inclusion

**Electives - Group B (select two)**

**Customer Service Stream**

- ▶ CCLD 445 Early Childhood Studies: Inclusion and Consultation
- ▶ CDST 726 Disability Studies: Leadership in Human Services
- ▶ CGER 298 Gerontology: Ability, Disability and Aging

**Employment Stream**

- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ COHS 477 Occupational Health: Integrated Disability Management
- ▶ CSOC 472 Sociology: At Work in a Changing World

**Information and Communication Stream**

- ▶ CDST 525 Disability Studies: Rethinking Images of Difference
- ▶ CDST 614 Disability Studies: Community Access and Technology
- ▶ CINT 921 Interdisciplinary Studies: Writing for Disability Activism

**Note to registered certificate program students**

**Electives – Group A (Ethics and Social Justice Stream)**  
 CDST 604, CDST 725, and CDST 727 added.

**Electives – Group B (Information and Communication Stream)**  
 CINT 921 replaces CDST 505.  
 CSOC 525 deleted.  
 CDST 525 added.

**Distance Education**

The following courses are available in a distance education format this academic year.

- ▶ CDST 506 Disability Studies: Making Ontario Accessible
- ▶ CINT 902 Interdisciplinary Studies: Disability Issues
- ▶ CVDS 200 Disability Studies: AODA Capstone Synthesis
- ▶ CDST 504 Disability Studies: Mad People’s History
- ▶ CDST 725 Disability Studies: The Politics and Practice of Interventions
- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 509 Philosophy: Bioethics
- ▶ CINP 913 Nonprofit: Leading Through Change
- ▶ CINT 907 Interdisciplinary Studies: Team Work for Community Services
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 650 Human Resources: Management of Change
- ▶ CDST 502 Disability Studies: Disability and the State
- ▶ CCLD 445 Early Childhood Studies: Inclusion and Consultation
- ▶ CGER 298 Gerontology: Ability, Disability and Aging
- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ COHS 477 Occupational Health: Integrated Disability Management
- ▶ CDST 525 Disability Studies: Rethinking Images of Difference

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|---|---|--|--|--|--|
| <b>Required Courses</b><br><i>(2 Courses)</i>                 | ▶▶                                      | CDST 506<br>Making Ontario Accessible                  | One of the following courses:<br>CDST 501 Rethinking Disability<br>CINT 902 Disability Issues<br>CSWP 921 Disability Issues and Social Work Practice |  |  |
| <b>Elective Streams Group A</b><br><i>(Choose one course)</i> | ▶▶                                      | <b>Ethics and Social Justice Stream</b>                | <b>Organizational Behaviour and Change Management Stream</b>   | <b>Public Policy and Law Stream</b>              |  |
|   |   | CDST 500<br>A History of Madness                       | CNIP 913<br>Leading Through Change   | CDST 502<br>Disability and the State             |  |
|   |   | CDST 504<br>Mad People’s History                       | CINT 907<br>Team Work for Community Services   | CDST 603<br>Disability and the Law               |  |
|   |   | CDST 604<br>Current Topics in Disability II            | CMHR 405<br>Organizational Behaviour and Interpersonal Skills  | CPHL 602<br>Health Care and Distributive Justice |  |
|   |   | CDST 725<br>The Politics and Practice of Interventions | CMHR 650<br>Management of Change   | CSWP 402<br>Social Policy and Social Inclusion   |  |
|   |   | CDST 727<br>Leadership for Social Action               |  |  |  |
|   |   | CPHL 302<br>Ethics and Health Care                     |  |  |  |
|   |   | CPHL 400<br>Human Rights and Justice                   |  |  |  |
|   |   | CPHL 507<br>Ethics and Disability                      |  |  |  |
|   |   | CPHL 509<br>Bioethics                                  |  |  |  |
| <b>Elective Streams Group B</b><br><i>(Choose two course)</i> | ▶▶                                      | <b>Customer Service Stream</b>                         | <b>Employment Stream</b>   | <b>Information and Communication Stream</b>      |  |
|   |   | CCLD 445<br>Inclusion and Consultation                 | CMHR 600<br>Diversity and Inclusion in the Workplace   | CDST 525<br>Rethinking Images of Difference      |  |
|   |   | CDST 726<br>Leadership in Human Services               | COHS 477<br>Integrated Disability Management   | CDST 614<br>Community Access and Technology      |  |
| CGER 298<br>Ability, Disability and Aging                     | CSOC 472<br>At Work in a Changing World | CINT 921<br>Writing for Disability Activism            |  |  |  |
| <b>Required Capstone Course</b>                               | ▶▶                                      | CVDS 200<br>AODA Capstone Synthesis                    |  |  |  |

# APPLIED DIGITAL GEOGRAPHY AND GIS

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program has been developed for professionals currently practising or anticipating careers in government, industry, utilities, planning, municipal services, health, and retailing, who wish to enhance their professional skills in digital geography and geographic information systems (GIS). The certificate is designed to provide both training and education in digital geography.

The program responds to today's need for enhanced computer literacy in the management and analysis of digital spatial data, and the application of that data in decision-making. Digital geography is an area of study that concentrates on the electronic capture, storage, manipulation, and analysis of geographic data. Using location as the "look-up" key, disparate data sets can be linked and related to each other for a whole range of workplace applications. Following initial courses in which principles and concepts of digital geography and fundamental skills in GIS are introduced, the workplace applications are stressed in courses aimed at specific specialties. Higher level courses focus on refining GIS tools and implementation issues.

Students in the program are expected to have a working knowledge of desktop PC Windows environments.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/gis](http://www.ryerson.ca/ce/gis).

For related career information, please visit Industry Overview.

## Academic Coordinator:

Joe Aversa, [certificates@geography.ryerson.ca](mailto:certificates@geography.ryerson.ca).

## Admission Requirements

Undergraduate degree or college diploma in an acceptable related field is required. Applicants must complete an application for pre-approval and be approved before registering for the first course. Forms are available at [www.ryerson.ca/ce/gis](http://www.ryerson.ca/ce/gis).

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Advanced Credit

All applicants to the program are eligible to apply for advanced standing, with credit being granted for course work undertaken, or for professional practice, providing the course work or professional practice meets or exceeds the academic goals and content of the program courses for which credit is being sought. Advanced credit applications will be evaluated by the academic coordinator and the program director, and subject to normal Ryerson admission policies and procedures. Students may be required to take

a challenge examination in order to ascertain eligibility for advanced standing. Students will be eligible for a maximum of three course credits toward the certificate.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

The introductory core courses are designed to provide the student with a good contextual background in digital databases and the principles of applied digital geography. They form the foundation upon which further courses rest and students must complete both courses before continuing.

- ▶ CODG 101 Digital Geography: Spatial Databases and Digital Cartography
- ▶ CODG 102 Digital Geography: Digital Geography and Spatial Analysis

## Electives (select a total of four courses)

### Electives – Group A (select one or two)

Five professional applications courses allow the student to focus on an area of interest.

- ▶ CODG 123 Digital Geography: Digital Geography Applications in Utilities Planning
- ▶ CODG 124 Digital Geography: Digital Geography Applications in Business Decision-Making
- ▶ CODG 125 Digital Geography: Digital Geography Applications for the Municipal Professional
- ▶ CODG 126 Digital Geography: Digital Geography Applications in Environmental Management
- ▶ CODG 127 Digital Geography: Digital Geography Applications in Community and Social Services

### Electives – Group B (select two or three)

These courses are designed to provide the student with some understanding of the more complex core skills and issues facing business, municipal, environmental, utilities or community and social services professionals when they employ digital geography in their decision making.

- ▶ CODG 130 Digital Geography: Legal and Ethical Issues in GIS and Digital Data
- ▶ CODG 131 Digital Geography: Issues and Innovations
- ▶ CODG 132 Digital Geography: Customizing GIS Software: Applications Programming
- ▶ CODG 133 Digital Geography: Map Algebra: Topology and Overlay
- ▶ CODG 135 Digital Geography: Digital Image Processing and Applications
- ▶ CODG 136 Digital Geography: Web Mapping

As the sixth course for certificate completion, students may take one course in the first level of the Advanced Certificate in Applied Digital Geography and GIS (provided the prerequisite is met).

*Note: Because most courses have a significant lab component and since there are a limited number of lab stations, enrollment in most courses is limited to 30 registrants.*

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CODG 101 Digital Geography: Spatial Databases and Digital Cartography
- ▶ CODG 102 Digital Geography: Digital Geography and Spatial Analysis
- ▶ CODG 124 Digital Geography: Digital Geography Applications in Business Decision-Making
- ▶ CODG 125 Digital Geography: Digital Geography Applications for the Municipal Professional
- ▶ CODG 131 Digital Geography: Issues and Innovations
- ▶ CODG 132 Digital Geography: Customizing GIS Software: Applications Programming
- ▶ CODG 136 Digital Geography: Web Mapping

## ADVANCED APPLIED DIGITAL GEOGRAPHY AND GIS

The advanced certificate offers a sequence of courses that combine to form a comprehensive package of principles and practice in advanced-level GIS education and training for GIS professionals. It builds on the courses in the first Certificate in Applied Digital Geography and GIS to provide greater conceptual understanding and technical expertise in this increasingly complex industry.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/gis](http://www.ryerson.ca/ce/gis).

For related career information, please visit Industry Overview.

### Academic Coordinator:

Joe Aversa, [certificates@geography.ryerson.ca](mailto:certificates@geography.ryerson.ca).

### Admission Requirements

Successful completion of the Certificate in Applied Digital Geography and GIS or its equivalent is required. An interview with the academic coordinator is required to facilitate assessment of prior learning. Official documentation of English proficiency may be required if English is not the first language of the applicant. Application forms are available at [www.ryerson.ca/ce/gis](http://www.ryerson.ca/ce/gis).

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses – First Level (select four or five)

Students may select one course from the Group B Electives in the Certificate in Applied Digital Geography and GIS.

- ▶ CODG 210 Digital Geography: Spatial Database Management Systems
- ▶ CODG 211 Digital Geography: Advanced GIS Programming
- ▶ CODG 212 Digital Geography: Spatial Statistical Methods
- ▶ CODG 213 Digital Geography: Internet GIS

### Required Courses – Second Level (select one or two)

- ▶ CODG 220 Digital Geography: GIS Implementation
- ▶ CODG 221 Digital Geography: GIS Project

## ARCHITECTURAL PRESERVATION AND CONSERVATION

This is a highly technical certificate program consisting of six 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. While the core courses provide a strong grounding in general issues, the electives allow the students to choose an area of interest or specialization – history, project management, or preservation technologies.

### Admission Requirements

#### *Graduates of the Ryerson Advanced Certificate in Architecture*

Graduates of the Ryerson Advanced Certificate in Architecture are deemed to have met the admissions requirements.

#### *Graduates of North American Architectural Schools*

This program is offered at a post-graduate level. To ensure that students have attained a sufficient understanding of the required background in architecture and design, applicants admitted to this program will normally possess a post-secondary undergraduate education (university or college) in a relevant field of study:

- ▶ architecture
- ▶ architectural technology
- ▶ building science\*
- ▶ engineering technology\*

*\*Upgrading course may be required for these graduates prior to formal enrollment in the program.*

Applicants must demonstrate an understanding of the following, through their undergraduate studies:

- ▶ architectural theory and design
- ▶ history of Western architecture
- ▶ structural engineering
- ▶ materials and methods of North American cold climate construction
- ▶ building systems (mechanical and electrical)

#### *Graduates of Non-North American Architectural Schools*

Graduates from non-North American architectural schools are required to take the following courses prior to admission:

- ▶ CKAR 310 Architecture: Materials and Methods

#### *Graduates of Non-Architectural Programs*

Applicants without architectural training will be required to take the following upgrading courses in order to be considered for admission:

- ▶ CKAR 103 Architecture: Architectural Studio - Fundamental
- ▶ CKAR 201 Architecture: Mechanical and Electrical Systems for Buildings
- ▶ CKAR 300 Architecture: Architectural Drawing
- ▶ CKAR 310 Architecture: Materials and Methods

## Other Requirements

Applicants are also recommended to have working knowledge of computer operations and computer-aided design/drafting. Advanced standing/challenge credit will be granted to applicants with prior learning in courses equal in content and scope. The University's policies will apply.

Applicants who do not hold a post-secondary undergraduate degree or diploma but who possess an appropriate combination of education and experience in architecture and/or architectural preservation and conservation may be considered for admission on an individual basis.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (four required courses from the core curriculum and of two electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

For further information about the program, please contact the Academic Coordinator, Yew-Thong Leong at 416.979.5000, ext. 6498, or attend a Program Open House.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Sample Certificate Completion Models

Certificate-completion models offer combinations of courses that have been developed to assist you in completing your certificate in three or six terms; see the

Architectural Preservation and Conservation certificate at [www.ryerson.ca/ce](http://www.ryerson.ca/ce). Planning your studies according to one of these models allow you to complete your certificate a pace suitable to you.

## Required Courses

- ▶ CKAR 600 Architectural Preservation and Conservation: Architecture Preservation and Conservation Workshop
- ▶ CKAR 601 Architectural Preservation and Conservation: Building Science for Architectural Preservation and Conservation
- ▶ CKAR 604 Architectural Preservation and Conservation: Management and Regulatory Framework
- ▶ CKAR 610 Architecture: Architectural Preservation and Conservation Techniques

## Electives (select two)

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKAR 203 Architecture: Specifications and Contractual Documents
- ▶ CKAR 204 Architecture: Cost Estimating and Control
- ▶ CKAR 209 Architecture: Digital Graphics for Architecture and Design
- ▶ CKAR 210 Architecture: Toronto: An Architectural History
- ▶ CKAR 500 Architecture: Sustainable Buildings
- ▶ CKAR 605 Architectural Preservation and Conservation: Comprehensive Seminar/Project
- ▶ CKDA 602 Digital Architecture: Digital Architectural Modelling
- ▶ CKDA 603 Digital Architecture: Digital Architectural Rendering I
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 213 Project Management: Management of Projects in the AEC
- ▶ CKPM 214 Project Management: Project Development and Control

Candidates may also take up to two courses in Material Analysis and Testing from the Centre for Advanced Building Technologies, George Brown College, as electives. Contact William K. Juranic, Chair, Technology, Centre for Continuous Learning, 416.415.4358, or Chair, Centre for Advanced Building Technologies, 416.415.4388, both at George Brown College. These courses may be considered for Transfer Credit when completed with a grade of B or better, where B equals at least 70 percent. A Letter of Permission is required from the academic coordinator.

Candidates may also take up to two courses in the history of Medieval, Renaissance, Baroque/Rococo, modern, or vernacular/colloquial architecture. Candidates are to consult the academic coordinator for a list of approved courses. A Letter of Permission is required from the academic coordinator.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKPM 202 Project Management: Fundamentals of Project Management

## ARCHITECTURE

This certificate program is designed for those wishing to enter the field of architecture, as well as those already employed in the field and wishing to improve their skills and credentials. With additional courses, this six-course certificate is recognized by the Association of Architectural Technologists of Ontario (AATO) as meeting the educational requirements for membership as a Probationer Technician. Students interested in the AATO should refer to the Professional Designation at [www.ryerson.ca/ce](http://www.ryerson.ca/ce).

### Admission Requirements

Applicants admitted to this program will normally possess a post-secondary undergraduate education (university or college) in a relevant field of study including programs related to architecture and or environmental science.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. A maximum of three course credits may be granted on the basis of equivalent courses successfully completed at other post-secondary institutions or fully documented work experience. After completing the five required courses, students may select from the elective courses listed.

It is recommended that the required courses be taken in the following order: CKAR 300, CKAR 310, CKAR 205, and CKAR 103.

For further information about the program, please contact the Academic Coordinator, Yew-Thong Leong at 416.979.5000, ext. 6498, or attend a Program Open House.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Sample Certificate Completion Models

Certificate-completion models offer combinations of courses that have been developed to assist you in completing your certificate in three or six terms. Planning your studies according to one of these models allow you to complete your certificate a pace suitable to you.

### Certificate in three terms

|                  |                    |
|------------------|--------------------|
| <b>FALL 1:</b>   | CKAR 300, CKAR 310 |
| <b>WINTER 1:</b> | CKAR 103, CKAR 205 |
| <b>FALL 2:</b>   | Electives (two)    |

### Certificate in six terms

|                         |          |
|-------------------------|----------|
| <b>FALL 1:</b>          | CKAR 310 |
| <b>WINTER 1:</b>        | CKAR 205 |
| <b>SPRING/SUMMER 1:</b> | Elective |
| <b>FALL 2:</b>          | CKAR 300 |
| <b>WINTER 2:</b>        | CKAR 103 |
| <b>SPRING/SUMMER 2:</b> | Elective |

## Required Courses

- ▶ CKAR 103 Architecture: Architectural Studio - Fundamental
- ▶ CKAR 205 Architecture: Building Codes and Regulations
- ▶ CKAR 300 Architecture: Architectural Drawing
- ▶ CKAR 310 Architecture: Materials and Methods

## Electives (select two)

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKAR 203 Architecture: Specifications and Contractual Documents
- ▶ CKAR 204 Architecture: Cost Estimating and Control
- ▶ CKAR 209 Architecture: Digital Graphics for Architecture and Design
- ▶ CKAR 210 Architecture: Toronto: An Architectural History
- ▶ CKAR 500 Architecture: Sustainable Buildings
- ▶ CKAR 605 Architectural Preservation and Conservation: Comprehensive Seminar/Project
- ▶ CKDA 602 Digital Architecture: Digital Architectural Modelling
- ▶ CKDA 603 Digital Architecture: Digital Architectural Rendering I
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 213 Project Management: Management of Projects in the AEC
- ▶ CKPM 214 Project Management: Project Development and Control

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKPM 202 Project Management: Fundamentals of Project Management

# ADVANCED ARCHITECTURE

This advanced certificate will be of particular interest to those actively engaged in the architectural or related fields who are seeking the educational requirements for accreditation as an architectural technologist. It will also be of interest to those holding non-Canadian diplomas who are seeking Canadian qualifications in the architectural field.

## Association of Architectural Technologist of Ontario

The Association of Architectural Technologist of Ontario (AATO) recognizes successful completion of the Advanced Certificate in Architecture as fulfilling the academic component of the Probational Technologist membership requirements. For more details, see AATO under Professional Designations at [www.ryerson.ca/ce](http://www.ryerson.ca/ce).

## Ontario Association for Applied Architectural Sciences

The Ontario Association for Applied Architectural Sciences (OAAAS) recognizes successful completion of the Advanced Certificate in Architecture as fulfilling the academic component of the membership requirements. For more details, see OAAAS under Professional Designations at [www.ryerson.ca/ce](http://www.ryerson.ca/ce).

## Admission Requirements

Successful completion of the Certificate in Architecture or equivalent academic qualifications and work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the advanced certificate. A maximum of three course credits may be granted on the basis of equivalent courses successfully completed at other post-secondary institutions or fully documented work experience.

For further information about the program, please contact the Academic Coordinator, Yew-Thong Leong at 416.979.5000, ext. 6498, or attend a Program Open House.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ).

For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Sample Certificate Completion Models

Certificate-completion models offer combinations of courses that have been developed to assist you in completing your certificate in three or six terms. Planning your studies according to one of these models allow you to complete your certificate a pace suitable to you.

## Required Courses

- ▶ CCMN 432 Communication: Communication in the Engineering Professions
- ▶ CKAR 201 Architecture: Mechanical and Electrical Systems for Buildings
- ▶ CKAR 215 Architecture: Computer-Aided Architectural Drawing
- ▶ CKAR 601 Architectural Preservation and Conservation: Building Science for Architectural Preservation and Conservation

## Electives (select two)

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKAR 203 Architecture: Specifications and Contractual Documents
- ▶ CKAR 204 Architecture: Cost Estimating and Control
- ▶ CKAR 209 Architecture: Digital Graphics for Architecture and Design
- ▶ CKAR 210 Architecture: Toronto: An Architectural History
- ▶ CKAR 500 Architecture: Sustainable Buildings
- ▶ CKAR 605 Architectural Preservation and Conservation: Comprehensive Seminar/Project
- ▶ CKDA 602 Digital Architecture: Digital Architectural Modelling
- ▶ CKDA 603 Digital Architecture: Digital Architectural Rendering I
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 213 Project Management: Management of Projects in the AEC
- ▶ CKPM 214 Project Management: Project Development and Control

## Note to registered certificate program students

### Required

CKAR 215 replaces CKAR 206.

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKPM 202 Project Management: Fundamentals of Project Management

## BUSINESS COMMUNICATION

This certificate program will help individuals develop a high level of competence in communication, particularly in business and government organizations. The program focuses on helping students learn how to complete the following:

- ▶ write letters, memoranda, and reports that are concise, lucid, and effective
- ▶ plan and deliver informative and persuasive oral presentations without undue stress or stage fright
- ▶ generate information through library research, database searches, systematic observation, interviews, and surveys
- ▶ analyze information to yield conclusions that will be understood and recommendations that will be acted upon
- ▶ use careful organization, headings, and visual aids to produce reports that are impressive to look at and informative to read
- ▶ interact effectively in small groups and committees
- ▶ foster an organizational environment which encourages effective communication by all employees

All courses with the exception of CDCM 415 and CDCM 300 are degree program equivalents, and may be taken for credit independently from the certificate.

### Admission Requirements

OSSD with six Grade 12 U or M credits (including English), with a minimum average of 60 percent, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight courses (six required courses and two electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate. It is recommended that students begin the program with CCMN 279.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CCMN 313 Communication: Organizational Problem Solving and Report Writing
- ▶ CCMN 314 Communication: Professional Presentations
- ▶ CCMN 413 Communication: Corporate Communications
- ▶ CCMN 414 Communication: Interpersonal Communication in Management
- ▶ CCMN 443 Communication: Contemporary Intercultural Communication

## Electives (select two)

- ▶ CCMN 315 Communication: Issues in Communication and the Contemporary Workplace
- ▶ CCMN 447 Communication: Communication and Law
- ▶ CCMN 448 Communication: Introduction to Visual Communication
- ▶ CDCM 300 Communication: Communicating in Virtual Environments
- ▶ CDCM 415 Communication: Promotional Communications
- ▶ CFRE 502 French: Advanced Business French I

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CCMN 313 Communication: Organizational Problem Solving and Report Writing

# BUSINESS DECISION ANALYSIS

## Formerly: Business Analysis

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program provides an in-depth study of the fundamentals of quantitative management methods. It is designed to develop skills and knowledge necessary for the effective use of the vast amounts of data available today for business analysis and quality control.

## Admission Requirements

OSSD with six Grade 12 U or M credits (including one in Mathematics), or equivalent, or mature student status with some experience in business.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Computer Support

Some Quantitative Methods courses rely heavily on computer support. Limited computer facilities are provided by Ryerson. When access to the mainframe is required, students are issued account numbers.

## Supplies to Be Purchased by the Student

A calculator with specialized statistical features is integral to many Quantitative Methods courses. Software and calculator specifications will be announced at the first class.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CQMS 202 Quantitative Methods: Business Statistics II

## Electives (select four)

Students may select only one of CHTH 102 or CMKT 723.

- ▶ CCMN 313 Communication: Organizational Problem Solving and Report Writing
- ▶ CGMS 402 Global Management: Introduction to Managerial Economics
- ▶ CGMS 422 Global Management: Quality Management
- ▶ CHTH 102 Hospitality and Tourism: Service and Professionalism
- ▶ CMKT 500 Marketing: Marketing Research
- ▶ CMKT 723 Marketing: Marketing in the Service Industry
- ▶ CQMS 442 Quantitative Methods: Multiple Regression for Business
- ▶ CQMS 521 Quantitative Methods: Business Optimization

## Note to registered certificate program students

Effective Fall 2013, the Certificate in Business Analysis has been revised to Business Decision Analysis. Students who were formally registered in the certificate prior to July 1, 2013, must complete the requirements in effect at the time of their registration.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CQMS 202 Quantitative Methods: Business Statistics II
- ▶ CCMN 313 Communication: Organizational Problem Solving and Report Writing
- ▶ CHTH 102 Hospitality and Tourism: Service and Professionalism
- ▶ CMKT 500 Marketing: Marketing Research
- ▶ CMKT 723 Marketing: Marketing in the Service Industry

## BUSINESS FRENCH AND TRANSLATION

This certificate program is designed mainly for individuals working or intending to work in French in a business environment. The program offers a range of specialized and practical courses permitting students to improve their communication and translation skills, thus adding to their professional qualifications and career opportunities.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/french](http://www.ryerson.ca/ce/french).

## Admission Requirements

Certificate of Proficiency in French from Ryerson, or the completion of CFRE 510 with a minimum grade of C+, or admission by placement assessment and interview.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The Certificate in Business French and Translation is usually granted on completion of six single-term credit courses, with a cumulative grade point average of 1.67 or higher, beginning with CFRE 515 or CFRE 610. A student may be admitted to a higher level by interview, but must successfully complete a minimum of five single-term credit courses, with a cumulative grade point average of 1.67 or higher, to obtain the certificate. A student granted an exemption from taking CFRE 515 or CFRE 610 will need to complete five higher-level courses.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses (select five)

- ▶ CFRE 502 French: Advanced Business French I
- ▶ CFRE 507 French: English-French Translation I
- ▶ CFRE 602 French: Advanced Business French II
- ▶ CFRE 607 French: English-French Translation II
- ▶ CFRE 707 French: Introduction to French-English Translation

### Electives (select one)

- ▶ CFRE 515 French: Introduction to Business French
- ▶ CFRE 610 French: Effective Writing II
- ▶ CFRE 706 French: The Life and Times of the French Language

## BUSINESS MANAGEMENT

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This program provides an overall management perspective and all the requirement competencies for those planning a career in business. These programs are ideal for those already employed in business and industry who wish to expand their knowledge of business concepts and practices.

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status with experience in business.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. Up to four course credits may be granted on the basis of courses successfully completed at other institutions.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

Students may select one of CACC 100 or CACC 110.  
Students planning to pursue the Accounting Finance major must enroll in CACC 110.

Students may select one of CITM 100 or CITM 102.  
Students planning to pursue the Business Technology major must enroll in CITM 100.

- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CITM 100 Information Technology Management: Foundations of Information Systems
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CLAW 122 Law: Business Law
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CQMS 102 Quantitative Methods: Business Statistics I

## Note to registered certificate program students

### Required

CITM 100 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CLAW 122 Law: Business Law
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CQMS 102 Quantitative Methods: Business Statistics I

# CANADIAN SOCIAL WORK PRACTICE

This certificate program is designed to enhance the employment and academic prospects of internationally educated social work professionals. Offered part-time over a 10-month period (beginning in the Fall term), the program includes courses, mentorship, and work experience. The certificate is open only to internationally educated professionals with social service experience approved through the Internationally Educated Social Work Professionals (IESW) Program Admissions Process.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/socialwork](http://www.ryerson.ca/ce/socialwork).

## Admission Requirements

A social work degree awarded outside of Canada and registration with the Ontario College of Social Workers and Social Service Workers (OCSWSSW) and;

A minimum of one year of paid accumulated employment in the social service field (abroad and/or in Canada)

OR

A social work degree awarded outside of Canada assessed as equivalent to a BSW or an MSW by the Canadian Association of Social Workers (CASW) and;

A minimum of one year of paid accumulated employment in the social service field (abroad and/or in Canada)

OR

A baccalaureate degree awarded outside of Canada (minimum of three years of university study) in the humanities or social sciences, and equivalent to a Canadian degree and;

A minimum of two years' paid accumulated employment in the social service field (abroad and/or in Canada)

In addition, all applicants must have the following:

- ▶ proof of English proficiency at the required level
- ▶ proof of Ontario residency
- ▶ proof of eligibility to work in Canada

Students seeking admission to this program are also required to complete an application form and participate in a pre-assessment. The form can be found on the Internationally Educated Social Work Professionals (IESW) Program website.

For further information about the program please visit the IESW Program website at [www.ryerson.ca/ce/socialwork](http://www.ryerson.ca/ce/socialwork).

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of five courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CVSW 31A/B Canadian Social Work Practice (IESW):  
Social Work Practice Seminar
- ▶ CVSW 900 Canadian Social Work Practice (IESW):  
Foundations of Social Work
- ▶ CVSW 917 Canadian Social Work Practice (IESW):  
Special Topics I
- ▶ CVSW 918 Canadian Social Work Practice (IESW):  
Special Topics II

## Electives (select one)\*

- ▶ CVSW 35A/B Canadian Social Work Practice (IESW):  
Field Practicum
- ▶ CVSW 36A/B Canadian Social Work Practice (IESW):  
Field Practicum for Internationally  
Educated Social Workers

*\*Note: Students admitted into the program who are already registered with the Ontario College of Social Workers and Social Service Workers (OCSWSSW) or who hold a degree assessed as equivalent by the Canadian Association of Social Workers (CASW) select CVSW 36A/B. Students who do not meet these qualifications must select CVSW 35A/B.*

# COMMUNITY ENGAGEMENT, LEADERSHIP, AND DEVELOPMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This interdisciplinary certificate will be of interest to community practitioners in organizations in the public and nonprofit sectors, across diverse fields of service such as social services, education, labour, health, housing, policing, and transportation. Courses focus on the acquisition of the knowledge and skills required to engage community members effectively in planning, problem solving, and decision-making processes that improve conditions and address issues related to the social, political and/or cultural wellbeing of civic and community life.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/community](http://www.ryerson.ca/ce/community).

## Admission Requirements

OSSD with six Grade 12 U, including Grade 12 U or M credits, or equivalent, or mature student status with relevant work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

Required Courses: CSWP 934; two or all three of CINI 913, CSWP 935, and/or CSWP 936

Electives: one selection if all four of the Required Courses above have been completed OR two selections if only three of the Required Courses above have been completed

Required Capstone Course: CSWP 937

## Required Courses

Students may select two or three of CINI 913, CSWP 935, and/or CSWP 936.

- ▶ CINI 913 Nonprofit: Leading Through Change
- ▶ CSWP 934 Social Work: Community Engagement Foundations
- ▶ CSWP 935 Social Work: Engaging Diverse Communities
- ▶ CSWP 936 Social Work: Community Engagement Practices
- ▶ CSWP 937 Social Work: Community Engagement Capstone

## Electives (select one or two)

- ▶ CCMN 313 Communication: Organizational Problem Solving and Report Writing
- ▶ CCMN 314 Communication: Professional Presentations
- ▶ CCMN 414 Communication: Interpersonal Communication in Management
- ▶ CCMN 443 Communication: Contemporary Intercultural Communication
- ▶ CCRM 322 Criminal Justice and Criminology: Ethics in Criminal Justice
- ▶ CCRM 402 Criminal Justice and Criminology: | Criminal Justice and Social Inequality
- ▶ CDST 501 Disability Studies: Rethinking Disability
- ▶ CDST 502 Disability Studies: Disability and the State
- ▶ CDST 613 Disability Studies: Strategies for Community Building
- ▶ CFNY 407 Food Security: Community Development and Food Security
- ▶ CINT 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- ▶ CINT 904 Interdisciplinary Studies: Health Promotion and Community Development
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CINT 907 Interdisciplinary Studies: Team Work for Community Services
- ▶ CINT 910 Interdisciplinary Studies: First Nations

- ▶ CINT 912 Issues  
Interdisciplinary Studies: Community Development: International Field Experience
- ▶ CINT 914 Interdisciplinary Studies: Settlement Experiences
- ▶ CINT 916 Interdisciplinary Studies: Introduction to Fundraising
- ▶ CINT 917 Interdisciplinary Studies: Urban Community Development
- ▶ CINT 920 Interdisciplinary Studies: Community Collaborations
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CODG 127 Digital Geography: Digital Geography Applications in Community and Social Services
- ▶ CPHL 334 Philosophy: Ethics in Professional Life
- ▶ CPLE 745 Planning: Selected Topics in Planning
- ▶ CPSY 808 Psychology: Community Psychology
- ▶ CSOC 500 Sociology: Youth and Society
- ▶ CSOC 609 Sociology: Women and Human Rights
- ▶ CSOC 705 Sociology: Law and Justice
- ▶ CSWP 302 Social Work: Social Policy: Welfare and Programs
- ▶ CSWP 335 Social Work: Power, Resistance and Change
- ▶ CSWP 402 Social Work: Social Policy and Social Inclusion
- ▶ CVFS 401 Family Supports: Contemporary Family Issues
- ▶ CVFS 403 Family Supports: Family Supports Theory and Practice

## Note to registered certificate program students

This certificate has been revised effective July 1, 2013. Students who formally registered in the certificate prior to July 1, 2013, must complete the program requirements in effect at the time they registered.

### Required

- CSWP 934 replaces CVSW 200.
- CSWP 935 replaces CVSW 220.
- CSWP 936 replaces CVSW 210.
- CSWP 937 replaces CVSW 300.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CINP 913 Nonprofit: Leading Through Change
- ▶ CSWP 934 Social Work: Community Engagement Foundations
- ▶ CSWP 935 Social Work: Engaging Diverse Communities
- ▶ CSWP 936 Social Work: Community Engagement Practices
- ▶ CCMN 313 Communication: Organizational Problem Solving and Report Writing
- ▶ CDST 502 Disability Studies: Disability and the State
- ▶ CFNY 407 Food Security: Community Development and Food Security
- ▶ CINT 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- ▶ CINT 904 Interdisciplinary Studies: Health Promotion and Community Development
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CINT 907 Interdisciplinary Studies: Team Work for Community Services
- ▶ CINT 914 Interdisciplinary Studies: Settlement Experiences
- ▶ CINT 916 Interdisciplinary Studies: Introduction to Fundraising
- ▶ CINT 920 Interdisciplinary Studies: Community Collaborations
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CVFS 401 Family Supports: Contemporary Family Issues
- ▶ CVFS 403 Family Supports: Family Supports Theory and Practice

## COMPUTER PROGRAMMING APPLICATIONS

This program is designed for individuals who wish to work as application programmers in software engineering, database technology, and networking or related user support positions. It provides overview systems principles and client/server architecture that will enable individuals to perform system integrations and user help functions. It provides training in the most popular programming languages (Java and C) and the popular operating system (UNIX). The Certificate also permits specialization by students in several application areas: Software Engineering, Database Technology, Networking, Project Management, GIS, and Landscape Design.

### Admission Requirements

OSSD with six OAC credits or Grade 12 U or M credits, or equivalent, or mature student status, or permission of the academic coordinator.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The certificate will require the successful completion of six courses, with a cumulative grade point average of 1.67 or higher. Up to three course credits may be granted on the basis of courses successfully completed at other post-secondary institutions.

For further information about the program, please contact the Academic Coordinator, Dr. Sadeghian at 416.979.5000, ext. 6961, or attend a Program Open House.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

Core Program, Required Courses, All Streams

Students may select only two of CCPS 305, CCPS 393, or CKCS 200.

Students taking the Database Technology Networking or the Software Engineering Stream must take CCPS 305 and CCPS 393.

- ▶ CCPS 109 Computer Science: Computer Science I
- ▶ CCPS 209 Computer Science: Computer Science II
- ▶ CCPS 305 Computer Science: Data Structures
- ▶ CCPS 393 Computer Science: Introduction to C and UNIX
- ▶ CKCS 200 Computer Science: Introduction to Computer Applications

## Computational Methods, Required Courses

- ▶ CKCS 210 Computer Science: Mathematical Modeling: Introduction to MATLAB
- ▶ CKCS 220 Computer Science: Mathematical Modeling: Statistical Analysis Utilizing SPSS

## Database Technology Stream, Required Courses

- ▶ CCPS 510 Computer Science: Database Systems I
- ▶ CCPS 610 Computer Science: Database Systems II

## Geographic Information Systems, Required Courses (select two)

- ▶ CODG 132 Digital Geography: Customizing GIS Software: Applications Programming
- ▶ CODG 136 Digital Geography: Web Mapping
- ▶ CODG 211 Digital Geography: Advanced GIS Programming

## Landscape Design (Dynascape), Required Courses

- ▶ CKLA 300 Landscape Design: Landscape Design Communications and Theory
- ▶ CKLA 440 Landscape Design: Digital Landscape Design

## Networking Stream, Required Courses

- ▶ CCPS 590 Computer Science: Introduction to Operating Systems
- ▶ CCPS 706 Computer Science: Computer Networks I

## Software Engineering Stream, Required Courses

- ▶ CCPS 311 Computer Science: Object Oriented Programming and Design
- ▶ CCPS 613 Computer Science: Human-Computer Interaction

## Project Management (MS Project), Required Courses

- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 207 Project Management: Project Management Systems

## Supplemental Information

This certificate program provides training in C, C++, and Object-Oriented Programming. It is important to realize that various courses require the successful completion of prerequisite courses. The recommended sequence of courses provides students with the best training and learning experience.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CODG 132 Digital Geography: Customizing GIS Software: Applications Programming
- ▶ CODG 136 Digital Geography: Web Mapping
- ▶ CKLA 300 Landscape Design: Landscape Design Communications and Theory
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 207 Project Management: Project Management Systems

# COMPUTER SECURITY AND DIGITAL FORENSICS

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program is designed to develop the core knowledge and functional competencies required to work in the cutting-edge and rapidly evolving fields of computer security and digital forensics. The program will provide students with both the academic background and hands-on experience to effectively oversee white/black box penetration tests, analyze a system to identify vulnerabilities, manage the remediation of security weaknesses, collect digital evidence in a proper forensic manner, and recover lost data after a hardware failure. The legal environment in which computer security and digital forensics practitioners work will also be examined, and students will gain insight into the role and function of expert forensic witnesses. The program encompasses the technicalities of information security and digital forensics, investigative protocols, professional and ethical considerations for practitioners, and relevant court procedures. Graduates should be well positioned to enter into and succeed in this exciting, competitive, and high-demand field.

Computer security and digital forensics specialists play a vital role in the protection of public and private data and the computer systems controlling everything from financial information to critical infrastructure. This certificate will be of interest to individuals just starting their career; career changers seeking to achieve advancement, portability, and longevity goals; managers and end users requiring a more in-depth understanding of computer security and data protection; and long-time practitioners seeking to round out their knowledge and attain a recognized level of academic achievement.

*Important Note: Knowledge of TCP/IP is recommended.*

Students must have a Windows or Linux computer operating system; the Apple (MAC) operating system is not supported by this course.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/compsec](http://www.ryerson.ca/ce/compsec).

Students interested in preparing to write the Certified Information Systems Security Professional (CISSP) certification exam may wish to explore CXCC 104. Visit [www.ryerson.ca/ce/its](http://www.ryerson.ca/ce/its) for information about this course.

## Admission Requirements

OSSD with six Grade 12 U or M credits, including a Grade 12 U course in English and with a minimum grade point average of 70 percent, or equivalent, or mature student status. Note: Knowledge of TCP/IP is recommended.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CKDF 110  
CKDF 120  
CKDF 130  
CKDF 140  
CZLW 120  
CKDF 150

*Note: Students wishing to take another certificate course concurrently with CKDF 110, or to take two or more certificate courses simultaneously may do so.*

## Required Courses

- ▶ CKDF 110 Computer Security and Digital Forensics: Computer Network Security
- ▶ CKDF 120 Computer Security and Digital Forensics: Computer Cryptography and Digital Steganography
- ▶ CKDF 130 Computer Security and Digital Forensics: Digital Forensics Systems
- ▶ CKDF 140 Computer Security and Digital Forensics: Security Architecture and Design
- ▶ CKDF 150 Computer Security and Digital Forensics: Digital Forensics Investigation
- ▶ CZLW 120 Law: Law for Forensics Professionals

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKDF 110 Computer Security and Digital Forensics: Computer Network Security
- ▶ CKDF 120 Computer Security and Digital Forensics: Computer Cryptography and Digital Steganography
- ▶ CKDF 130 Computer Security and Digital Forensics: Digital Forensics Systems
- ▶ CKDF 140 Computer Security and Digital Forensics: Security Architecture and Design
- ▶ CKDF 150 Computer Security and Digital Forensics: Digital Forensics Investigation
- ▶ CZLW 120 Law: Law for Forensics Professionals

# CRIMINAL JUSTICE AND CRIMINOLOGY

The Certificate in Criminal Justice and Criminology will provide interdisciplinary knowledge and critical thinking skills with respect to social and criminal justice, including public and private security, policing, the administration of criminal justice, and corrections and community engagement. This program is relevant to administrators and managers in a wide variety of public and private sectors who are seeking career entry, career portability, and career advancement in fields related to criminal justice.

### Academic Coordinator:

Professor Landau: [tlandau@ryerson.ca](mailto:tlandau@ryerson.ca).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status with relevant work experience, including policing, corrections, courts, social service agencies, security management services, or regulatory enforcement agencies are required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses, with a cumulative grade point average of 1.67, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CCRM 100 Criminal Justice and Criminology: Introduction to Canadian Criminal Justice
- ▶ CCRM 102 Criminal Justice and Criminology: Introduction to Criminology

## Generalist Stream (select three)

- ▶ CCRM 200 Criminal Justice and Criminology: Criminal Law
- ▶ CCRM 202 Criminal Justice and Criminology: Victims and the Criminal Process
- ▶ CCRM 300 Criminal Justice and Criminology: Policing in Canada
- ▶ CCRM 306 Criminal Justice and Criminology: Corrections in Canada
- ▶ CCRM 308 Criminal Justice and Criminology: Criminal Courts in Canada
- ▶ CCRM 402 Criminal Justice and Criminology: Criminal Justice and Social Inequality

## Electives (select one)

- ▶ CCRM 304 Criminal Justice and Criminology: Youth Justice in Canada
- ▶ CGEO 581 Geography: GIS, Geographic Data and Mapping
- ▶ CPHL 449 Philosophy: Philosophy of Punishment
- ▶ CPHL 612 Philosophy: Philosophy of Law
- ▶ CPSY 300 Psychology: Psychology and Law
- ▶ CPSY 602 Psychology: Developmental Psychopathology
- ▶ CSOC 500 Sociology: Youth and Society
- ▶ CSOC 502 Sociology: Violence and the Family

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CPHL 612 Philosophy: Philosophy of Law
- ▶ CPSY 300 Psychology: Psychology and Law
- ▶ CSOC 502 Sociology: Violence and the Family

## DEMOGRAPHIC ANALYSIS

An understanding of demographics and demographic change is of increasing importance for professionals working in a wide variety of occupations in business, government, and not-for-profit sectors. This certificate offers opportunities to take a grounding in the principles and applications of demographic analysis and GIS applications in demography into the study of selected courses, with a concentration on applications used for business, commercial or public sector purposes, immigration and settlement studies and/or the economic impacts of demographic change. The final course will give students an opportunity to engage in “real-world” demographic analysis of issues such as school enrollments and closures, demand and supply of goods and services, retail sales potential, demand and supply of settlement services, social and assisted housing, and traffic in urban areas.

### Academic Coordinator:

Joe Aversa: [certificates@geography.ryerson.ca](mailto:certificates@geography.ryerson.ca)

## Admission Requirements

OSSD with six Grade 12 U or M credits (English recommended) with a minimum grade of 70 percent, or equivalent, or mature student status with relevant work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (three required courses and three electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into

the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence: CODA 100; CODA 110; Electives (three selections); and CODA 120.

## Required Courses

- ▶ CODA 100 Demographic Analysis: Principles of Demographic Analysis
- ▶ CODA 110 Demographic Analysis: GIS Applications in Demography
- ▶ CODA 120 Demographic Analysis: Advanced Demographic Applications

## Electives (select three)

- ▶ CECN 640 Economics: The Economics of Immigration
- ▶ CGEO 206 Geography: Regions, Nations and the Global Community
- ▶ CGEO 301 Geography: Marketing Geography
- ▶ CGEO 419 Geography: Retailing, GIS and Geodemographics
- ▶ CGEO 505 Geography: Regional Analysis of Canada
- ▶ CGEO 691 Geography: Canadian Immigration: Patterns and Place
- ▶ CGEO 803 Geography: Recreation and Tourism Analysis
- ▶ CINT 913 Interdisciplinary Studies: Issues of Migration
- ▶ CINT 914 Interdisciplinary Studies: Settlement Experiences
- ▶ CINT 915 Interdisciplinary Studies: Responses to Migration
- ▶ CODG 127 Digital Geography: Digital Geography Applications in Community and Social Services
- ▶ CPLE 725 Planning: Multicultural Cities and Public Policies
- ▶ CPSY 620 Psychology: Psychology of Immigration
- ▶ CPSY 941 Psychology: Cross Cultural Psychology
- ▶ CSOC 474 Sociology: Immigration, Minorities and Citizenship

## Note to registered certificate program students

### Electives

CPLE 745 deleted.  
CGEO 206 and CPLE 725 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CODA 100 Demographic Analysis: Principles of Demographic Analysis
- ▶ CODA 110 Demographic Analysis: GIS Applications in Demography
- ▶ CINT 913 Interdisciplinary Studies: Issues of Migration
- ▶ CINT 914 Interdisciplinary Studies: Settlement Experiences
- ▶ CINT 915 Interdisciplinary Studies: Responses to Migration

# DESIGN FOR ARTS AND ENTERTAINMENT

Start your behind-the-scenes career with an interdisciplinary approach to design in the fields of arts, culture, and entertainment. This certificate will help you develop the skills needed to plan and create characters and environments for live stage, film, television, photography, and multimedia installations by exploring a curriculum that is relevant to the current and emerging practice of scenography and design.

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English), or equivalent, with a minimum average of 60 percent, or mature student status with relevant professional experience.

Students who have no previous drawing experience must successfully complete Drawing Fundamentals (CDID 803).

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of seven courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

Early Terms: CDID 150, CDID 170, CDMP 130

Mid Terms: CDMP 122, Cultural Elective, Technology Elective

Final Term: CDMP 123

## Required Courses

- ▶ CDID 150 Interior Design: Design Theory
- ▶ CDID 170 Design for Arts and Entertainment: Drafting for Entertainment
- ▶ CDMP 122 Film Studies: Production Design for Film and Theatre
- ▶ CDMP 123 Film Studies: Art Direction for Film and Special Events
- ▶ CDMP 130 Design for Arts and Entertainment: History of Arts and Scenography

## Cultural Electives (select one)

- ▶ CDFC 106 Fashion Coordination and Styling: Fashion, Culture, and Society
- ▶ CDFP 391 Photography: History of Photography I
- ▶ CDMP 120 Film Studies: Film History
- ▶ CENG 101 English Literature: Laughter and Tears: Comedy and Tragedy
- ▶ CMPC 203 New Media: Art in the Modern World
- ▶ CMUS 110 Music: Music and Film

## Technology Electives (select one)

- ▶ CCMN 314 Communication: Professional Presentations
- ▶ CDFA 104 Fashion: Fashion Drawing I
- ▶ CDID 552 Lighting Design: Entertainment Lighting Design
- ▶ CDMP 114 Film Studies: Post-Production Sound
- ▶ CFPN 531 Film Studies: Cinematography and Lighting Design I

## Note to registered certificate program students

### Cultural Electives

CMPC 203 replaces CDNM 111.  
CENG 201 and CTHF 403 deleted.  
CDFC 106 and CMUS 110 added.

### Technology Electives

CDFC 102 and CDFP 385 deleted.  
CDFA 104 and CFPN 531 added.

# DESIGN MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The design industry generates billions of dollars in many sectors of the Canadian economy including manufacturing, construction, materials supply, transportation, retail, marketing, and consulting services. Graduates will be equipped to enter or progress within the growing numbers of organizations where design is considered to have strategic importance.

This multidisciplinary certificate program will provide graduates with the knowledge and skills required to be employed in those organizations engaged in the design field. It is aimed at those who may already be working in the design or business fields and/or those who have some design or business post-secondary education. It serves many different disciplines dedicated to design, including fashion, interior, industrial, graphic, landscape, architectural, engineering, and business interests.

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent. Work experience and/or post-secondary education related to design or business is desirable.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses (three required courses and five electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed

# DISASTER AND EMERGENCY MANAGEMENT

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate, offered both in class and online, is designed for individuals seeking professional development in disaster management. With the increasing number of natural disasters and emergencies around the world, graduates will be equipped with the knowledge required to effectively manage a crisis.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/disaster](http://www.ryerson.ca/ce/disaster).

## Admission Requirements

OSSD with six Grade 12 U, including Grade 12 U or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

CDDM 101; CDDM 102;

Electives (five selections); CDDM 103

## Required Courses

- ▶ CDDM 101 Design Management: Introduction to Design Management
- ▶ CDDM 102 Design Management: Design Management II
- ▶ CDDM 103 Design Management: Design Management Project

## Electives (select five)

- ▶ CCMN 314 Communication: Professional Presentations
- ▶ CDDM 104 Design Management: Design Awareness I
- ▶ CDDM 106 Design Management: Design Research
- ▶ CDGA 651 Graphic Communications: Graphic Communications Processes
- ▶ CDID 150 Interior Design: Design Theory
- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CITM 100 Information Technology Management: Foundations of Information Systems
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMKT 100 Marketing: Principles of Marketing

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMKT 100 Marketing: Principles of Marketing

## Required Courses

Students may select only one of CDCM 125, CKDM 100, CKDM 105, CKDM 110, or CKDM 115.

- ▶ CDCM 125 Communication: Disaster and Emergency Incident Communications
- ▶ CKDM 100 Disaster Emergency Management: Principles and Practices of Emergency Management
- ▶ CKDM 105 Disaster Emergency Management: Project Management in Disaster Recovery
- ▶ CKDM 110 Disaster Emergency Management: Law of Disaster and Emergency Management
- ▶ CKDM 115 Disaster Emergency Management: Intl Policies and Disaster Coord
- ▶ CKDM 120 Disaster Emergency Management: Emergency Operations and Incident Management
- ▶ CKDM 130 Disaster Emergency Management: Critical Analysis of Operations
- ▶ CKDM 140 Disaster Emergency Management: Emergency Management Planning
- ▶ CKDM 150 Disaster Emergency Management: Risk Management
- ▶ CKDM 160 Disaster Emergency Management: Emerging Issues

## Note to registered certificate program students

CDCM 125 and CKDM 115 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKDM 100 Disaster Emergency Management: Principles and Practices of Emergency Management
- ▶ CKDM 120 Disaster Emergency Management: Emergency Operations and Incident Management
- ▶ CKDM 130 Disaster Emergency Management: Critical Analysis of Operations
- ▶ CKDM 140 Disaster Emergency Management: Emergency Management Planning
- ▶ CKDM 150 Disaster Emergency Management: Risk Management
- ▶ CKDM 160 Disaster Emergency Management: Emerging Issues

## ECONOMICS

The Certificate in Economics is designed for those without a post-secondary education in economics who wish to acquire knowledge of the discipline. A sound knowledge of economic principles is an important asset for people in a variety of fields of endeavour. The program will be of particular interest to those employed in business or government, and to secondary school teachers of economics.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

**Academic Coordinator:**  
Michael Jolly

## Admission Requirements

OSSD with six Grade 12 U (including Grade 12 U credits in English and Mathematics) or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 301 Economics: Intermediate Macroeconomics I
- ▶ CECN 504 Economics: Intermediate Microeconomics I

## Electives (select three)

There are antirequisites to these courses. Students should consult the course descriptions before registering.

- ▶ CECN 321 Economics: Introduction to Law and Economics
- ▶ CECN 501 Economics: Industrial Organization
- ▶ CECN 502 Economics: Economics of Natural Resources
- ▶ CECN 506 Economics: Money and Banking
- ▶ CECN 510 Economics: Environmental Economics
- ▶ CECN 605 Economics: Labour Economics
- ▶ CECN 640 Economics: The Economics of Immigration
- ▶ CECN 703 Economics: Public Finance I
- ▶ CECN 710 Economics: Transportation Economics
- ▶ CECN 803 Economics: Public Finance II

*Note: CECN 104 and CECN 204 give the student access to all the upper-level liberal studies courses in Economics as well as to the upper-level professionally related courses. CECN 110 and CECN 210 are not allowed as substitutes for CECN 104 and CECN 204 for Liberal Studies credit.*

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 321 Economics: Introduction to Law and Economics
- ▶ CECN 506 Economics: Money and Banking

# ECONOMICS AND FINANCE

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate will help students to qualify as Chartered Financial Analysts, Certified Financial Analysts, and/or Certified Financial Planners, to name only three examples of professional designations. The program will also help to prepare students for the Canadian Securities Examination.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

## Admission Requirements

OSSD with six Grade 12 U, including Grade 12 U credits in English and Mathematics (one of which must be Advanced Functions, Calculus and Vectors, or Data Management), or M credits with a minimum grade of 70 percent; or equivalent; or mature student status. As well, student must have completed the following courses or equivalents:

CACC 110 Accounting: Financial Accounting for Accounting Majors

CECN 189 Economics: Introduction to Mathematics for Economics

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into

the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CFIN 501 Finance: Investment Analysis

### Electives (select two)

*Note: Students are allowed to choose only one of CECN 721 or CFIN 621 as their electives.*

- ▶ CECN 301 Economics: Intermediate Macroeconomics I
- ▶ CECN 504 Economics: Intermediate Microeconomics I
- ▶ CECN 506 Economics: Money and Banking
- ▶ CECN 606 Economics: International Monetary Economics
- ▶ CECN 703 Economics: Public Finance I
- ▶ CECN 721 Economics: International Financial Markets
- ▶ CECN 803 Economics: Public Finance II
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CFIN 510 Finance: Small Business Finance
- ▶ CFIN 512 Finance: Risk Management and Insurance
- ▶ CFIN 601 Finance: Derivatives
- ▶ CFIN 612 Finance: Retirement and Estate Planning
- ▶ CFIN 621 Finance: International Finance

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CECN 506 Economics: Money and Banking
- ▶ CECN 606 Economics: International Monetary Economics
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CFIN 512 Finance: Risk Management and Insurance
- ▶ CFIN 612 Finance: Retirement and Estate Planning

## ENERGY MANAGEMENT AND INNOVATION

This certificate program provides adult learners with an opportunity to acquire a level of knowledge and expertise that will permit them to contribute effectively to energy management, conservation, sustainability, and public policy governing this regulated sector; and to energy innovation, entrepreneurship, and the challenges and opportunities for developing new energy technologies and business enterprises. This program has been developed in cooperation with Ryerson's Centre for Urban Energy.

### Academic Coordinator:

Dr. Bala Vankatesh, bala@ryerson.ca  
(copying Anne-Marie Brinsmead, Program Director: a2brinsm@ryerson.ca)

For detailed certificate and program information, please visit [www.ryerson.ca/ce/energy](http://www.ryerson.ca/ce/energy).

### Admission Requirements

Mature student status and evidence of relevant college or university level coursework, or equivalent

OR

Mature student status together with relevant industrial or professional experience

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into

# ENGLISH AS A SECOND/ ADDITIONAL LANGUAGE

*Note: Many of the courses in this program are available by distance education.*

The Certificate in English as a Second/Additional Language offers a range of general and specialized English courses for professional, vocational, and academic purposes.

It is designed for people who wish to increase their career opportunities and to add to their qualifications. The certificate offers courses at the intermediate and advanced levels and is open to people whose first language is not English.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/esl](http://www.ryerson.ca/ce/esl).

## Individual Courses

Individual courses are designed to develop proficiency in English. Most courses involve readings from a selection of texts, as well as practice for improvement in spoken and written English. Small classes provide maximum individual attention. Students who do not wish to complete the certificate may take individual courses from the program for personal or professional need. An online placement test or interview to determine the appropriate level of study for each student is required for admission to these courses.

## Admission Requirements

Admission to the certificate program is by written placement assessment and oral interview during which students' fluency, listening comprehension, communication strategies, and writing will be assessed. The course admission/assessment is necessary to determine the appropriate level of study for each student. Assessment will take place during Interview/Placement Assessment Nights. Students may also complete an online placement test for admission.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CKEI 100; CKPM 202; CKES 190;

Electives (select two); CKEI 140

It is recommended that the five courses be taken before the capstone course (CKEI 140); however, CKEI 140 may be taken concurrently with the fifth course.

## Required Courses

- ▶ CKEI 100 Energy Management: Energy Innovation and Entrepreneurship
- ▶ CKEI 140 Energy Management: Current Topics in Energy Management and Innovation
- ▶ CKES 190 Environmental Engineering Science: Renewable Energy and Green Technology
- ▶ CKPM 202 Project Management: Fundamentals of Project Management

## Electives (select two)

- ▶ CECN 510 Economics: Environmental Economics
- ▶ CKEI 110 Energy Management: Energy Conservation: Emerging Trends
- ▶ CKEI 120 Energy Management: Energy and the Public Policy Debate in Canada
- ▶ CKEI 130 Energy Management: An Introduction to Smart Grid
- ▶ CKSS 100 Sustainability: Fundamentals in Sustainability I

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKSS 100 Sustainability: Fundamentals in Sustainability I

## Certificate Requirements

The successful completion of six credits, earned in one of the following ways:

- ▶ three courses from the First Level and three from the Second Level
- ▶ the completion of any combination of courses equaling six certificate credits as recommended and approved by the ESL/EAL program director

If at the commencement of the certificate the student is ranked at the Second Level in the placement assessment, the successful completion of four single-term courses from the Second Level is required for the certificate. Students must achieve a cumulative grade point average of 1.67 or higher to graduate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## First Level

(Three courses required for students entering the Certificate at the First Level. For further information, see Certificate Requirements.)

- ▶ COEN 204 English as a Second/Additional Language: Intermediate Grammar
- ▶ COEN 210 English as a Second/Additional Language: Reading/Listening Test Prep I
- ▶ COEN 220 English as a Second/Additional Language: Writing/Speaking Test Prep I
- ▶ COEN 294 English as a Second/Additional Language: Writing Accurately and Clearly
- ▶ COEN 295 English as a Second/Additional Language: Critical Reading and Effective Writing
- ▶ COEN 299 English as a Second/Additional Language: Effective Conversation Strategies
- ▶ COEN 301 English as a Second/Additional Language: Pronunciation

## Second Level

(Three courses required. Students ranked above the First Level in the placement assessment will require the completion of four Second Level courses.)

- ▶ CLNG 111 English as a Second/Additional Language: Language and Identity
- ▶ CLNG 112 English as a Second/Additional Language: Language: Spoken and Written
- ▶ CLNG 113 English as a Second/Additional Language: Language and Public Life
- ▶ COEN 296 English as a Second/Additional Language: Writing for Professionals
- ▶ COEN 298 English as a Second/Additional Language: Scientific and Technical Writing
- ▶ COEN 304 English as a Second/Additional Language: Advanced Grammar
- ▶ COEN 306 English as a Second/Additional Language: ESL/EAL: Oral Communication for Professionals
- ▶ COEN 311 English as a Second/Additional Language: Integrated Skills I
- ▶ COEN 312 English as a Second/Additional Language: Integrated Skills II
- ▶ COEN 410 English as a Second/Additional Language: Reading/Listening Test Prep II
- ▶ COEN 420 English as a Second/Additional Language: Writing/Speaking Test Prep II

## Note to registered certificate program students

### First Level

COEN 210 and COEN 220 added.  
COEN 460 deleted.

### Second Level

CLNG 111 replaces CLNG 100.  
CLNG 112 replaces CLNG 300.  
CLNG 113 replaces CLNG 200.  
COEN 410 and COEN 420 added.  
COEN 461 deleted.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CLNG 111 English as a Second/Additional Language: Language and Identity

# ENGLISH LITERATURE AND POPULAR CULTURE

This certificate is designed for students who appreciate the important ways in which English literature and culture enhance the quality of their lives and careers. Designed to allow students to tailor their studies to their own interests and aspirations, the program offers a dynamic grounding in the study of literature, writing, media, and popular culture. Graduates will have a strong knowledge base in contemporary and historical literature and culture that will prove useful in the experience, analysis, and production of cultural works.

## Academic Coordinator:

Bill Emery: [bemery@ryerson.ca](mailto:bemery@ryerson.ca)

## Admission Requirements

OSSD with six Grade 12 U or M credits, including a credit in English with a minimum grade of 70 percent; or equivalent; or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (two required courses and four electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CENG 108 English Literature: Introduction to Fiction
- ▶ CENG 208 English Literature: Introduction to Non-Fiction

## Elective Streams (select a total of four courses)

Literature and Entertainment Stream (select a maximum of four)

- ▶ CENG 112 English Literature: Zap, Pow, Bang Pop Lit
- ▶ CENG 222 English Literature: Fairy Tales and Fantasies
- ▶ CENG 503 English Literature: Science Fiction
- ▶ CENG 510 English Literature: Gothic Horror
- ▶ CENG 705 English Literature: Reading Visual Cultures
- ▶ CENG 706 English Literature: Shakespeare and Performance
- ▶ CENG 888 English Literature: Televisual Texts and Contexts

## Reading/Writing Culture Stream (select a maximum of four)

- ▶ CENG 200 English Literature: Writing as a Cultural Act
- ▶ CENG 505 English Writing Development: Creative Writing
- ▶ CENG 511 English Literature: The Art of Writing Life
- ▶ CENG 520 English Literature: The Language of Persuasion
- ▶ CENG 610 English Literature: The Language of Love, Sex and Gender
- ▶ CENG 720 English Literature: Rhetorical Theory and Criticism
- ▶ CENG 921 English Literature: Narrative in a Digital Age

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENG 108 English Literature: Introduction to Fiction
- ▶ CENG 112 English Literature: Zap, Pow, Bang Pop Lit
- ▶ CENG 222 English Literature: Fairy Tales and Fantasies

# ENTERPRISE ARCHITECTURE AND INFRASTRUCTURE MANAGEMENT

The telecommunications profession in Canada has grown rapidly. With the introduction of competition to the marketplace and the growing need to move voice, image, and data, the demand for qualified professionals in this area is steadily increasing. Graduates of this certificate will have the skills required for positions involving the use, analysis, design, implementation, and management of telecommunications. The certificate will also provide a perspective on the role and function of information systems.

For further information about the program, please contact The Chang School at 416.979.5035 or attend a Program Open House.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/itm](http://www.ryerson.ca/ce/itm).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status, and basic computer literacy and knowledge of the functions of business.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. Good oral and written communications skills are essential for success in the program.

## Credit Policies

Courses may be credited toward the Ryerson Bachelor of Commerce (Information Technology Management) degree program should candidates wish to continue their education after attaining this certificate. See the Ryerson Undergraduate Program Calendar at [www.ryerson.ca/calendar](http://www.ryerson.ca/calendar) for more information.

Up to three course credits may be granted either on the basis of courses successfully completed at other institutions or by writing challenge examinations, which are offered in CITM 315, and CITM 600. Challenge examinations provide the opportunity for applicants with business experience to earn credit and reduce the total number of courses required to complete their certificate program. Only two courses in the certificate can be challenged. All certificate courses are the equivalents or partial equivalents of degree credit courses currently offered by the School of Information Technology Management and are transferable in the event of a student's changing from continuing education student

status to program status in the Ted Rogers School of Information Technology Management.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CITM 207 Health Informatics: Computer-Enabled Problem Solving
- ▶ CITM 301 Information Technology Management: IT Infrastructure
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 600 Information Technology Management: Data Communications Network Design

## Electives (select two)

- ▶ CITM 315 Information Technology Management: Network Administration
- ▶ CITM 513 Information Technology Management: Adv Infrastructure Deployment and Management
- ▶ CITM 704 Information Technology Management: Wireless and Mobile Communications
- ▶ CITM 732 Information Technology Management: Switching and Routing Laboratory
- ▶ CITM 750 Information Technology Management: IT Project Management
- ▶ CITM 820 Information Technology Management: Information Systems Security and Privacy

## Note to registered certificate program students

Effective Fall 2012, the Certificate in Telecommunications Management has been revised to Enterprise Architecture and Infrastructure Management. Students who were formally registered in the certificate prior to July 1, 2012, must complete the requirements in effect at the time of their registration. The addition of CITM 207 increases the number of required courses for certificate completion from three to four. The number of elective courses has been reduced from three to two.

## Required Courses

CITM 207 added.

## Electives

CITM 820 replaces CITM 420.

CITM 520 deleted.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CITM 207 Health Informatics: Computer-Enabled Problem Solving
- ▶ CITM 301 Information Technology Management: IT Infrastructure
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 750 Information Technology Management: IT Project Management

# ENTREPRENEURSHIP AND MULTICULTURALISM

Entrepreneurs are people who take on the task of turning a business idea into a reality. This certificate is designed to give long-established and new Canadians, as well as recent immigrants, the skills and knowledge need to launch and run a business within a multicultural context. The four required courses build skills in business, marketing, and working with other cultures. The electives allow you to add additional skills in areas that suit your needs such as accounting or communication.

## Admission Requirements

OSSD with six OAC credits or Grade 12 U or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence: CZEN 300; CMKT 310; CENT 326; Electives (two selections); and CZEN 500.

## Required Courses

- ▶ CENT 526 Entrepreneurship: Entrepreneurial Behaviour and Strategy
- ▶ CMKT 310 Marketing: Marketing Plans
- ▶ CZEN 300 Entrepreneurship: Multicultural Opportunities
- ▶ CZEN 500 Multicultural Venture Startups

## Electives (select two)

- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CCMN 314 Communication: Professional Presentations
- ▶ CDCE 310 Workplace Communication in Canada (WCC): Formal and Informal Communication in the Workplace
- ▶ CDCE 320 Workplace Communication in Canada (WCC): Advanced Customer Focused Applications
- ▶ CDCE 330 Workplace Communication in Canada (WCC): Effective Persuasion and Public Speaking
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CINP 901 Nonprofit: Developing Effective Organizations
- ▶ CRMG 200 Retail Management: Intro to Retail and Services Management
- ▶ CRMG 902 Retail Management: Franchising
- ▶ CRMG 910 Retail Management: Multi-Channel Retailing

## Professional Development

You can receive an acknowledgement of professional achievement once you have successfully completed four courses as follows:

**Professional Development Award: Entrepreneurship and Multiculturalism** requires completion of CENT 526, CMKT 310, CZEN 300, and CZEN 500.

The four courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Entrepreneurship and Multiculturalism certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the four courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the four courses you have completed. Upon verification, you will receive your professional development award.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENT 526 Entrepreneurship: Entrepreneurial Behaviour and Strategy
- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CINP 901 Nonprofit: Developing Effective Organizations
- ▶ CRMG 200 Retail Management: Intro to Retail and Services Management
- ▶ CRMG 902 Retail Management: Franchising
- ▶ CRMG 910 Retail Management: Multi-Channel Retailing

# ENVIRONMENTAL ENGINEERING SCIENCE

This multidisciplinary program provides graduates with the broad knowledge base and wide range of skills they require as professionals in the environmental field. Students receive a grounding in air, water, and soil processes and contamination, biotechnology, instrumentation, and experiment design. The program also requires the student to develop proficiency in environmental management. Expertise is drawn from a number of degree programs including Applied Chemistry and Biology, Chemical Engineering, Civil Engineering, Mechanical Engineering, and Environmental Health.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/enviroengineer](http://www.ryerson.ca/ce/enviroengineer).

For related career information, please visit Industry Overview.

## Admission Requirements

Eligible applicants must meet one of the following criteria for acceptance in the program: undergraduate degree in one of the following programs: Science (e.g., Chemistry, Biology), Civil Engineering, Chemical Engineering, Mechanical Engineering, Mining, Metallurgical Science; or undergraduate degree in other programs (i.e., environment related); individuals without a degree but with an equivalent level of education and experience in environmental science or engineering may be admitted subject to the approval of the academic coordinator. Knowledge of basic chemistry at university level is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admissions Process

Applicants must complete an application for pre-approval and be accepted before entering the program. Application forms and general information are available from The G. Raymond Chang School of Continuing Education office, or online at the Forms and Documents section, or call 416.979.5035, prior to the appropriate application deadlines (see Important Dates). Applicants wishing to enroll in the program must provide evidence of prior academic accomplishments or relevant work-related experience. The academic coordinator reserves the right to limit entry into the program. The coordinator may also request that applicants reinforce certain fundamental subjects, such as math and chemistry, prior to admission in the program. If you need further information on the program requirements please attend a Program Open House, or you may contact the Academic Coordinator, Dr. Vadim Bostan. The applications should be sent to The G. Raymond Chang School of Continuing Education, 297 Victoria Street.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CKES 120 Environmental Engineering Science: Environmental and Atmospheric Processes
- ▶ CKES 210 Environmental Engineering Science: Applied Environmental Analysis
- ▶ CKES 220 Environmental Engineering Science: Environmental Law and Practice

## Electives (select three)

- ▶ CKES 102 Environmental Engineering Science: Hydrogeology Soil and Ground Water Science
- ▶ CKES 110 Environmental Engineering Science: Environmental Biotechnology Waste Treatment and Remediation
- ▶ CKES 121 Environmental Engineering Science: Toxicology and Risk Assessment
- ▶ CKES 130 Environmental Engineering Science: Applied Ecology
- ▶ CKES 160 Environmental Engineering Science: Waste Management
- ▶ CKES 170 Environmental Engineering Science: Water Treatment
- ▶ CKES 180 Environmental Engineering Science: Site Assessment
- ▶ CKES 190 Environmental Engineering Science: Renewable Energy and Green Technology

## Note to registered certificate program students

This certificate has been revised effective July 1, 2013. Students who formally registered in the certificate prior to July 1, 2013, must complete the program requirements in effect at the time they registered.

### Required

CKES 102 moved to electives, thereby reducing the number of Required Courses to three and increasing the number of Electives to three.

## ENVIRONMENTAL PUBLIC HEALTH LEADERSHIP

The certificate in Environmental Public Health Leadership is currently under review and will not be accepting any new registrants at this time. For further information please contact The Chang School at 416.979.5035 or [ce@ryerson.ca](mailto:ce@ryerson.ca).

The certificate in Environmental Public Health Leadership was developed in cooperation with the Ryerson School of Occupational and Public Health. These unique offerings are intended for public health professionals across Canada that are seeking to upgrade their managerial skills or are working toward a supervisory or management position within their organization. The portfolio of courses will help participants gain knowledge on the most effective way to manage their public health workforce through effective program planning, practice and implementation, policy and administrative techniques. The curriculum has a strong focus on current public health issues.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/eph](http://www.ryerson.ca/ce/eph).

### Admission Requirements

Eligible applicants must have one of the following: a completed baccalaureate or masters degree in public health or a minimum of two years' education in public health, five years' experience in public health, university level courses in Canadian public health law, and permission of the academic coordinator.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Certificate Requirements

The successful completion of seven courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CHSM 408 Health Services Management: Program Planning and Evaluation
- ▶ CVPH 401 Environmental Public Health Leadership: Public Health Administration
- ▶ CVPH 402 Environmental Public Health Leadership: Public Health Practice
- ▶ CVPH 403 Environmental Public Health Leadership: Social Marketing
- ▶ CVPH 404 Environmental Public Health Leadership: Public Health Policy
- ▶ CVPH 405 Environmental Public Health Leadership: Public Health Leadership
- ▶ CVPH 406 Environmental Public Health Leadership: Current Topics in Public Health

## ETHICS

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The Certificate in Ethics is designed to provide relevant, university-level education for individuals whose career paths require an ability to apply the principles of ethics in private and public sector organizations.

Individuals with knowledge of and practice in applied ethics have competencies to develop personal and organizational codes of ethics; to recognize, counsel, and train in analyzing and resolving ethical dilemmas; and to defend and monitor ethical decision making in their organizations.

### Academic Coordinator:

Alex Wellington: [awelling@philosophy.ryerson.ca](mailto:awelling@philosophy.ryerson.ca)

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (two required courses and four electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence: Electives – Group A (one selection); CPHL 334; Electives – Group B (three selections); and COPH 200.

## Required Courses

- ▶ COPH 200 Humanities: Ethics Capstone Course
- ▶ CPHL 334 Philosophy: Ethics in Professional Life

## Electives – Group A (select one)

### *Business and Organizations Stream*

- ▶ CPHL 307 Philosophy: Business Ethics
- ▶ CPHL 444 Philosophy: Ethics in Health Services Management

### *Environment Stream*

- ▶ CPHL 500 Philosophy: Philosophy of the Natural Environment
- ▶ CPHL 525 Philosophy: Environmental Ethics

### *Ethical Theory Stream*

- ▶ CPHL 503 Philosophy: Ancient and Modern Ethics
- ▶ CPHL 603 Philosophy: Modern and Contemporary Ethics

### *Health Stream*

- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 444 Philosophy: Ethics in Health Services Management
- ▶ CPHL 509 Philosophy: Bioethics

### *Human Rights and Administrative Justice Stream*

- ▶ CPHL 400 Philosophy: Human Rights and Justice
- ▶ CPHL 614 Philosophy: Philosophy of Human Rights

### *Law and Jurisprudence Stream*

- ▶ CPHL 449 Philosophy: Philosophy of Punishment
- ▶ CPHL 612 Philosophy: Philosophy of Law

### *Media and Culture Stream*

- ▶ CPHL 530 Philosophy: Media Ethics

## Electives – Group B (select three not previously taken in Electives – Group A)

### *Business and Organizations Stream*

- ▶ CGMS 802 Global Management: Ethics and Regulation of Intn'l Bus
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CITM 407 Information Technology Management: Info Tech, Ethics, and Society
- ▶ CLAW 122 Law: Business Law
- ▶ CLAW 525 Law: The Law of the Marketplace
- ▶ CLAW 529 Law: Employment and Labour Law
- ▶ CLAW 603 Law: Advanced Business Law
- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ CMHR 640 Human Resources: Leadership
- ▶ CODG 130 Digital Geography: Legal and Ethical Issues in GIS and Digital Data
- ▶ CPHL 307 Philosophy: Business Ethics
- ▶ CPHL 444 Philosophy: Ethics in Health Services Management

### *Environment Stream*

- ▶ CECN 502 Economics: Economics of Natural Resources
- ▶ CECN 510 Economics: Environmental Economics
- ▶ CPHL 500 Philosophy: Philosophy of the Natural Environment
- ▶ CPHL 525 Philosophy: Environmental Ethics
- ▶ CPSY 518 Psychology: Environmental Psychology

### *Ethical Theory Stream*

- ▶ CPHL 503 Philosophy: Ancient and Modern Ethics
- ▶ CPHL 603 Philosophy: Modern and Contemporary Ethics

### *Health Stream*

- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 444 Philosophy: Ethics in Health Services Management
- ▶ CPHL 509 Philosophy: Bioethics
- ▶ CPHL 602 Philosophy: Health Care and Distributive Justice
- ▶ CPSY 124 Psychology: Social Psychology
- ▶ CPSY 706 Psychology: Personal Growth and Positive Psychology

### *Human Rights and Administrative Justice Stream*

- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CPHL 400 Philosophy: Human Rights and Justice
- ▶ CPHL 507 Philosophy: Ethics and Disability
- ▶ CPHL 614 Philosophy: Philosophy of Human Rights
- ▶ CPOG 424 Politics and Public Administration: Human Rights and Global Politics
- ▶ CPPA 125 Politics and Public Administration: Rights, Equity, and the State
- ▶ CPPA 301 Politics and Public Administration: Administrative Law
- ▶ CSOC 609 Sociology: Women and Human Rights
- ▶ CSOC 705 Sociology: Law and Justice

### *Law and Jurisprudence Stream*

- ▶ CCRM 200 Criminal Justice and Criminology: Criminal Law
- ▶ CCRM 322 Criminal Justice and Criminology: Ethics in Criminal Justice
- ▶ CECN 321 Economics: Introduction to Law and Economics
- ▶ CLAW 122 Law: Business Law
- ▶ CLAW 525 Law: The Law of the Marketplace
- ▶ CLAW 529 Law: Employment and Labour Law
- ▶ CLAW 603 Law: Advanced Business Law
- ▶ CODG 130 Digital Geography: Legal and Ethical Issues in GIS and Digital Data
- ▶ CPHL 449 Philosophy: Philosophy of Punishment
- ▶ CPHL 612 Philosophy: Philosophy of Law
- ▶ CPHL 921 Philosophy: Intellectual Property and Technology
- ▶ CPPA 301 Politics and Public Administration: Administrative Law
- ▶ CSOC 705 Sociology: Law and Justice

### *Media and Culture Stream*

- ▶ CENG 413 English Literature: Colonial and Postcolonial Literatures
- ▶ CENG 520 English Literature: The Language of Persuasion
- ▶ CENG 621 English Literature: Women's Texts, Global Contexts
- ▶ CENG 720 English Literature: Rhetorical Theory and Criticism
- ▶ CHST 602 History: The History of Modern Propaganda
- ▶ CPHL 401 Philosophy: Philosophy and Mass Culture
- ▶ CPHL 530 Philosophy: Media Ethics
- ▶ CPHL 621 Philosophy: Beyond the Western Academic Tradition

### **Note to registered certificate program students**

This certificate has been revised effective July 1, 2013. Students who formally registered in the certificate prior to July 1, 2013, must complete the program requirements in effect at the time they registered.

#### *Electives – Group A*

Two new streams added as per the following:

Business and Organizations – CPHL 307 and CPHL 444  
Ethical Theory – CPHL 503 and CPHL 603

#### *Electives – Group A (Health Stream)*

CPHL 507 deleted.

#### *Electives – Group A (Law Stream)*

Name change: Law and Jurisprudence Stream

#### *Electives – Group A (Organizations and Professions Stream)*

Stream deleted.

#### *Electives – Group B*

Two new streams added as per the following:

Business and Organizations – CGMS 802, CINT 905, CITM 407, CLAW 122, CLAW 525, CLAW 529, CLAW 603, CMHR 600, CMHR 640, CODG 130, CPHL 307, and CPHL 444  
Ethical Theory – CPHL 503 and CPHL 603

#### *Electives – Group B (Environment Stream)*

CHST 562 deleted.

#### *Electives – Group B (Health Stream)*

CPHL 507 deleted.

CPHL 602 added.

#### *Electives – Group B (Human Rights and Administrative Justice Stream)*

CHST 301 and CHST 721 deleted.

#### *Electives – Group B (Law Stream)*

Name change: Law and Jurisprudence Stream

CENG 520 and CPHL 507 deleted.

CCRM 200, CLAW 122, CLAW 525, CLAW 529, and CLAW 603 added.

#### *Electives – Group B (Media and Culture Stream)*

CPHL 603 deleted.

#### *Electives – Group B (Organizations and Professions Stream)*

Stream deleted.

### **Distance Education**

The following courses are available in a distance education format this academic year.

- ▶ CPHL 307 Philosophy: Business Ethics
- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 509 Philosophy: Bioethics
- ▶ CPHL 612 Philosophy: Philosophy of Law
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CLAW 122 Law: Business Law
- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ CMHR 640 Human Resources: Leadership
- ▶ CPPA 125 Politics and Public Administration: Rights, Equity, and the State
- ▶ CPPA 301 Politics and Public Administration: Administrative Law
- ▶ CECN 321 Economics: Introduction to Law and Economics

# FACILITY MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The facility manager is responsible for the integration of the workplace with the people and work of the organization. This program will provide knowledge and analytical skills for those pursuing careers in this profession. It will be of interest to individuals at various stages of their career:

- ▶ those who are being prepared by an organization to assume a role in facility management
- ▶ those who are newly appointed to a facility management department
- ▶ those who wish to upgrade their credentials within the facility management department or to implement a career change

The design of the program is based on the guidelines for professional education developed by the International Facility Management Association.

## Admission Requirements

Undergraduate degree, or mature student status with related professional experience and education is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate

requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CDFM 102 Facility Management: Facility Management Theory
- ▶ CDFM 103 Facility Management: Professional Practice I
- ▶ CDFM 104 Facility Management: Professional Practice II

## Electives – Group A (select one)

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CCMN 314 Communication: Professional Presentations

## Electives – Group B (select four)

Many of these electives have prerequisites which must be met by the student unless waived by the subject coordinator. Students may be allowed to substitute other appropriate elective courses with permission of the academic coordinator.

- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CDFM 105 Facility Management: Office Facilities Space Management
- ▶ CDFM 203 Facility Management: Real Estate Planning and Development
- ▶ CDID 501 Lighting Design: Lighting Fundamentals
- ▶ CDID 504 Lighting Design: Lighting Energy Management
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CGMS 401 Global Management: Operations Management
- ▶ CKAR 500 Architecture: Sustainable Buildings
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMKT 504 Marketing: Effective Persuasion
- ▶ COHS 208 Occupational Health: Occupational Health and Safety Law
- ▶ COHS 718 Occupational Health: Systems Management I

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CGMS 401 Global Management: Operations Management
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ COHS 208 Occupational Health: Occupational Health and Safety Law
- ▶ COHS 718 Occupational Health: Systems Management I

# FAMILY SUPPORTS

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate provides individuals with skills and knowledge to support diverse families living in a rapidly changing and complex society. It will appeal to individuals who work with families in a wide range of settings, such as family resource programs, Ontario Early Years Centres, Best Start programs, community agencies, schools, religious institutions, and the workplace. Individuals who provide paid or volunteer service in family resource and support programs will have the opportunity to integrate their current practice with theory related to family supports, develop knowledge and skills needed for exemplary practice, and explore issues of diversity and inclusion as they work collaboratively to develop high quality innovative programs.

## Academic Coordinator:

Catherine Moher, 416.979.5000, ext. 2535.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/familysupports](http://www.ryerson.ca/ce/familysupports).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status is required. Admission by interview.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Interview

Admission interviews will be conducted either in person, by phone, or at a Program Open House. For further information, contact The G. Raymond Chang School of Continuing Education office by email or 416.979.5035.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses or equivalent, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Credits for Related Diplomas

To recognize the significance of the Early Childhood Diploma and other related Diplomas in Community Services sector within the framework of the Certificate in Family Supports, students who have completed an ECE and/or their related diplomas from an accredited academic institution within the past 10 years may be granted up to two elective credits toward the Certificate in Family Supports. In order to receive the appropriate credits, students must formally apply for Transfer Credits and must be registered in the certificate program prior to application. (For complete details see Transfer Credits.) Students who have additional questions are encouraged to contact the academic coordinator.

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CINT 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- ▶ CVFS 401 Family Supports: Contemporary Family Issues
- ▶ CVFS 403 Family Supports: Family Supports Theory and Practice

## Electives – Group A (select two)

- ▶ CINT 917 Interdisciplinary Studies: Urban Community Development
- ▶ CINT 920 Interdisciplinary Studies: Community Collaborations
- ▶ CVFS 400 Family Supports: Group Dynamics and Interpersonal Communication
- ▶ CVFS 402 Family Supports: Families Power and Social Change
- ▶ CVFS 406 Family Supports: Guiding Children's Development
- ▶ CVFS 408 Family Supports: Practicum/Project

## Electives – Group B (select one)

Students will choose one course from the following:

1. An additional course from Elective Group A above, excluding the two courses already completed.
2. One Interdisciplinary Studies (CINT) course.
3. One Nonprofit and Voluntary Sector Management (CINP) course.
4. With the submission of an approved Course Substitution/Directive Form signed by the academic coordinator, one course from Psychology, Sociology, Philosophy, or Politics courses, or equivalent.
5. With the submission of an approved Course Substitution/Directive Form signed by the academic coordinator, one professional course from Early Childhood Education, Nutrition, Child and Youth Care, Social Work, or Gerontology, or equivalent.

## Note to registered certificate program students

### Required Courses

CINT 900 replaces CVFS 404.

### Electives – Group A

CINT 917 replaces CVFS 407.

## Distance Education

The following courses are available in a distance education format this academic year. Many courses from Electives – Group B are also offered via distance education; please check individual course descriptions.

- ▶ CINT 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- ▶ CVFS 401 Family Supports: Contemporary Family Issues
- ▶ CVFS 403 Family Supports: Family Supports Theory and Practice
- ▶ CINT 920 Interdisciplinary Studies: Community Collaborations
- ▶ CVFS 402 Family Supports: Families Power and Social Change
- ▶ CVFS 406 Family Supports: Guiding Children's Development
- ▶ CVFS 408 Family Supports: Practicum/Project

# FASHION COORDINATION AND STYLING

This certificate is designed to prepare professionally trained students for a career as fashion coordination and styling consultants. It will provide graduates with a solid knowledge foundation, with creative and technical expertise, and with sound problem-solving abilities. The program offers a stimulating study of art, design, and costume history and technology, which will prepare the graduate for career progression within this specialist field of fashion. The fashion industry has far-reaching influence and generates billions of dollars in many sectors of the Canadian economy. There are many avenues of opportunity for graduates in areas such as video and movie production, special events, trade shows and promotional exhibits, retail, television, magazines, corporate and/or individual consultation, and business ownership.

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status with relevant professional experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses (four required courses and four electives), with a grade point average of 1.67 or higher, is required for completion of the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CDFC 101 Fashion Coordination and Styling: Fashion Coordination
- ▶ CDFC 102 Fashion Coordination and Styling: Fashion Styling
- ▶ CDFC 103 Fashion Coordination and Styling: Design Fundamentals in Fashion
- ▶ CDFC 104 Fashion Coordination and Styling: Creating the Image

## Electives (select four)

- ▶ CCMN 373 Communication: Fashion Communication: Professional Approaches
- ▶ CDFA 104 Fashion: Fashion Drawing I
- ▶ CDFA 110 Fashion: Fashion Drawing II
- ▶ CDFC 105 Fashion Coordination and Styling: Fashion Shows and Special Events
- ▶ CDFC 106 Fashion Coordination and Styling: Fashion, Culture, and Society
- ▶ CDFC 107 Fashion Coordination and Styling: Fashion Buying
- ▶ CDFC 200 Fashion Coordination and Styling: Fashion Photography
- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CFSN 703 Fashion: Visual Merchandising and Display
- ▶ CMKT 100 Marketing: Principles of Marketing

## Note to registered certificate program students

### Electives

CDFA 110 replaces CDFA 105.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CMKT 100 Marketing: Principles of Marketing

## FILM STUDIES

The Certificate in Film Studies provides a good basic grounding in the principles, contemporary theories, and techniques of the motion picture medium. Courses range from an introduction to basic filmmaking to specialized courses such as screen writing; cinematography and lighting workshops; directing screen performance; production design; sound design; and the business of developing, producing, and marketing motion pictures. It is an excellent starting point for people who want to pursue a career in the film industry or satisfy their curiosity about film and film production. The program will be of interest to various individuals:

- ▶ those working in the film industry who want to improve their qualifications
- ▶ those new to the industry, or others such as actors, who want to understand more fully all aspects of production
- ▶ those working in other fields who want to make a career change
- ▶ those working in allied fields who seek a better understanding of film production
- ▶ elementary and secondary school teachers who will apply the theoretical and practical knowledge they receive to their own teaching

The Chang School showcases the talents and recognizes the skill and dedication of continuing education film studies students at the annual Peter Gerretsen Film Awards.

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English), or equivalent, with a minimum average of 60 percent, or mature student status with relevant professional experience is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses (five required courses and three electives (or 117 course hours)), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/ Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

*Note: Students who register in courses for which they do not have the stated prerequisites will be withdrawn from those courses, unless they have been given prior permission by the academic coordinator.*

## Equipment/Facilities Use

Please note that equipment and facilities use outside of class time will not be provided. Extra time may be purchased.

## Required Courses

Please consult the course descriptions for prerequisites.

- ▶ CDMP 117 Film Studies: Film Technology I
- ▶ CDMP 118 Film Studies: Film and Sound Editing I
- ▶ CDMP 129 Film Studies: Motion Picture Production I
- ▶ CDMP 223 Film Studies: Film Technology II
- ▶ CDMP 229 Film Studies: Motion Picture Production II

## Electives (select three courses or 117 hours)

- ▶ CDMP 109 Business of Film: Business of Film - Producing
- ▶ CDMP 114 Film Studies: Post-Production Sound
- ▶ CDMP 119 Film Studies: Digital Film Production I
- ▶ CDMP 120 Film Studies: Film History
- ▶ CDMP 121 Film Studies: Film Theory
- ▶ CDMP 122 Film Studies: Production Design for Film and Theatre
- ▶ CDMP 123 Film Studies: Art Direction for Film and Special Events
- ▶ CDMP 125 Film Studies: Fiction Screenwriting
- ▶ CDMP 126 Film Studies: Non-Fiction Screenwriting
- ▶ CDMP 209 Business of Film: Business of Film - Development
- ▶ CDMP 215 Business of Film: Movie Marketing and Distribution
- ▶ CDMP 231 Film Studies: Short Filmmaking: On Location
- ▶ CDMP 232 Film Studies: Documentary Filmmaking in Cuba
- ▶ CDMP 700 Film Studies: Advanced Screenwriting
- ▶ CFPN 502 Film Studies: Directing Screen Performance - Basic Principles
- ▶ CFPN 531 Film Studies: Cinematography and Lighting Design I
- ▶ CFPN 631 Film Studies: Cinematography and Lighting Design II
- ▶ CMPC 101 New Media: Visual Studies I

## Note to registered certificate program students

### Electives

CMPC 101 replaces CDNM 113.  
 CDMP 215 replaces CDMP 210.  
 CDMP 210, CDMP 240, and CFPN 32A/B deleted.  
 CDMP 700, CFPN 502, and CFPN 631 added.

### An intensive, integrated, 12-week program

Students have the opportunity to obtain the Certificate in Film Studies over 12 intensive, six-day weeks in the Spring/Summer term. This unique fast-track program covers all required motion picture production, technology, and digital editing courses, plus three electives.

- ▶ CDMP 999 Film Studies: Summer Film School

# FINANCIAL MANAGEMENT IN CANADA

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The Certificate in Financial Management in Canada addresses the needs of internationally educated accounting and financial services professionals, who require a Canadian-specific knowledge base and professional communication competencies in order to market themselves effectively to employers and to practice confidently. Potential participants are typically adults in mid-career, who currently work in, or are hoping to enter the accounting profession or the financial industry in Canada and want to obtain a formal Canadian qualification in the field to advance their career.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/iafp](http://www.ryerson.ca/ce/iafp).

## Admission Requirements

A baccalaureate degree awarded outside of Canada in the area of business, accounting, or finance and a minimum of two years' paid accumulated employment in a relevant field (abroad and/or in Canada).

In addition, all applicants must have the following:

- ▶ proof of English proficiency at the required level
- ▶ proof of Ontario residency
- ▶ proof of eligibility to work in Canada

Students seeking admission to this program are also required to complete an application form and participate in a pre-assessment. The form can be found on the International Accounting and Finance Professionals (IAFP) website.

For further information about the program please visit the IAFP website at [www.ryerson.ca/ce/iafp](http://www.ryerson.ca/ce/iafp).

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of 6-10 courses, as approved by the program manager and outlined in the student's academic plan, according to the following categories: Professional, Courses (at least four selections), and Workplace Culture and Professional Communication Courses. Students must achieve a cumulative grade point average of 1.67 or higher to graduate.

*Note: Accreditation requirements vary among the accounting societies and professional associations, including minimum passing grades, and are available on the websites of respective professional bodies. In addition, for placements and internships, a higher grade may be required.*

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

This certificate will require the successful completion of 6-10 courses including a minimum of four professional courses, as approved by the program manager and outlined in the student's academic plan.

## Professional Courses

These professional courses are designed to provide students with necessary skills in accounting, finance, and management.

- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CACC 410 Accounting: Management Accounting for Accounting Majors
- ▶ CACC 414 Accounting: Intermediate Accounting I
- ▶ CACC 504 Accounting: Accounting Cases and Concepts I
- ▶ CACC 514 Accounting: Intermediate Accounting II
- ▶ CACC 521 Accounting: Auditing
- ▶ CACC 522 Accounting: Taxation for Managers and Financial Planners
- ▶ CACC 621 Accounting: Internal Auditing
- ▶ CACC 742 Accounting: Canadian Business Taxation I
- ▶ CACC 842 Accounting: Canadian Business Taxation II
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 506 Economics: Money and Banking
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CFIN 501 Finance: Investment Analysis
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CFIN 512 Finance: Risk Management and Insurance
- ▶ CFIN 601 Finance: Derivatives
- ▶ CFIN 612 Finance: Retirement and Estate Planning
- ▶ CFIN 812 Finance: Advanced Personal Financial Planning
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CGMS 401 Global Management: Operations Management

- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CITM 595 Information Technology Management: Auditing of Information Systems
- ▶ CITM 696 Information Technology Management: Accounting Information Systems
- ▶ CLAW 122 Law: Business Law
- ▶ CLAW 603 Law: Advanced Business Law
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CQMS 202 Quantitative Methods: Business Statistics II

#### Notes:

Those taking CACC 742 may opt to take supplemental course CZAC 740.

Those taking CACC 842 may opt to take supplemental course CZAC 840.

Those taking CLAW 603 may opt to take supplemental course CZAC 640.

### Workplace Culture and Professional Communication Courses

The Canadian Workplace Communication for IPs will determine the appropriate CDCE and CCMN courses and the Director of English as an Additional Language (EAL) will determine the appropriate COEN and CLNG courses.

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CCMN 124 Communication: Communication in BTM
- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CCMN 304 Communication: Career Advancement Communication
- ▶ CCMN 314 Communication: Professional Presentations
- ▶ CDCE 210 Workplace Communication in Canada (WCC): Introduction to Canadian Workplace Culture and Communication
- ▶ CDCE 220 Workplace Communication in Canada (WCC): Interpersonal Communication in the Workplace
- ▶ CDCE 240 Workplace Communication in Canada (WCC): Organizational Practices in Canada
- ▶ CDCE 310 Workplace Communication in Canada (WCC): Formal and Informal Communication in the Workplace
- ▶ CDCE 320 Workplace Communication in Canada (WCC): Advanced Customer Focused Applications
- ▶ CDCE 330 Workplace Communication in Canada (WCC): Effective Persuasion and Public Speaking
- ▶ CDCE 400 Workplace Communication in Canada (WCC): Exploring Leadership Skills
- ▶ CDCE 410 Workplace Communication in Canada (WCC): Canadian Workplace Governance
- ▶ CDCE 420 Workplace Communication in Canada (WCC): Strategic Working Relationships
- ▶ CDCE 430 Workplace Communication in Canada (WCC): Leadership in Client Relations
- ▶ CDCE 440 Workplace Communication in Canada (WCC): Team Building
- ▶ CDCE 910 Workplace Communication in Canada (WCC): Effective Oral Communication
- ▶ CDCE 920 Workplace Communication in Canada (WCC): Canadian Workplace Etiquette

Any COEN and/or CLNG course(s), as deemed appropriate by the Director of EAL.

### Note to registered certificate program students

This certificate has been revised effective July 1, 2013. Students who formally registered in the certificate prior to July 1, 2013, must complete the program requirements in effect at the time they registered.

#### Professional Courses

CZAC 742, CZAC 842, CZAF 122, and CZAF 522 deleted.

CACC 521, CACC 621, CGMS 401, and CMKT 100 added.

#### Complementary Courses

CZAC 110, CZAC 200, CZAF 110, and CZAF 200 deleted, therefore making it necessary to delete the Complementary Courses group.

#### Workplace Culture and Communication Courses

CDCE 330 added.

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CACC 410 Accounting: Management Accounting for Accounting Majors
- ▶ CACC 414 Accounting: Intermediate Accounting I
- ▶ CACC 514 Accounting: Intermediate Accounting II
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 506 Economics: Money and Banking
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CFIN 512 Finance: Risk Management and Insurance
- ▶ CFIN 612 Finance: Retirement and Estate Planning
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CGMS 401 Global Management: Operations Management
- ▶ CITM 102 Information Technology Management: Business Information Systems I
- ▶ CLAW 122 Law: Business Law
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CQMS 202 Quantitative Methods: Business Statistics II
- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CCMN 279 Communication: Introduction to Professional Communication

# FINANCIAL MATHEMATICS MODELING

This certificate program is intended to provide technically trained professionals with an understanding of how to determine the value of financial derivatives and complex investments, and how to assess and analyze, through modeling frameworks, the associated benefits and risks of these instruments. Participants will attain a mastery of financial mathematics, especially in the areas of stochastic processes and probability, in statistics, and in computation, together with an understanding of the highly complex operations of financial markets.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/financialmath](http://www.ryerson.ca/ce/financialmath).

## Admission Requirements

Mature student status and evidence of university level coursework in mathematics, economics, and/or finance, or equivalent (to be determined by the Academic Coordinator)

OR

Mature student status and other relevant qualifications or relevant industry experience (to be determined by the Academic Coordinator)

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Interview/Placement Assessment

An interview/placement assessment is required for this program. Contact Anne-Marie Brinsmead (Program Director, Engineering, Architecture, and Science) at [a2brinsm@ryerson.ca](mailto:a2brinsm@ryerson.ca).

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CFIN 300  
CKCS 140  
CFIN 501  
CMTH 304  
CMTH 500  
CKMT 800  
CMTH 700  
CMTH 800

## Required Courses

- ▶ CKMT 800 Mathematics: Computational Methods in Mathematics and Statistics
- ▶ CMTH 700 Mathematics: Financial Mathematics I
- ▶ CMTH 800 Mathematics: Financial Mathematics II

## Electives (select three\*)

- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 501 Finance: Investment Analysis
- ▶ CKCS 140 Computer Science: Structured Programming in C
- ▶ CMTH 304 Mathematics: Probability and Statistics I
- ▶ CMTH 500 Mathematics: Introduction to Stochastic Processes

\* The electives associated with this certificate program are divided into groups, based on the participant's area of expertise. The academic coordinator for the program will determine the grouping that applies to each participant, designed to strengthen his or her financial mathematics modeling competencies in other areas. A group of three (3) electives selected from the full list of elective courses may be substituted for the suggested elective groupings, at the discretion of the academic coordinator.

## Suggested Elective Groupings

Mathematical Grouping (for participants with mathematical background)

- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 501 Finance: Investment Analysis
- ▶ CKCS 140 Computer Science: Structured Programming in C

## Computational or Engineering Grouping (for participants with computational or engineering background)

- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 501 Finance: Investment Analysis
- ▶ CMTH 500 Mathematics: Introduction to Stochastic Processes

## Financial Grouping (for participants with financial background)

- ▶ CKCS 140 Computer Science: Structured Programming in C
- ▶ CMTH 304 Mathematics: Probability and Statistics I
- ▶ CMTH 500 Mathematics: Introduction to Stochastic Processes

## Note to registered certificate program students

### Required

CMTH 700 replaces CKMT 801.  
CMTH 800 replaces CKMT 802.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CFIN 300 Finance: Managerial Finance I

# FINANCIAL PLANNING

This advanced certificate is designed to build on your background in accounting, finance, or management and may lead you to a professional career as a financial planner.

Successful completion of this certificate will allow you to write the national examination that leads to the Certified Financial Planner designation by the Financial Planning Standards Council. For details check their website at [www.fpsc.ca](http://www.fpsc.ca).

### Academic Coordinator:

Coleen Clark, [colclark@ryerson.ca](mailto:colclark@ryerson.ca)

## Admission Requirements

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

This is an advanced certificate. Eligible applicants must have completed the Ryerson Certificate in Accounting – Finance, or an undergraduate degree, or a three-year college diploma, as well as all of the following courses or equivalents.

*Note: Applicants should have completed either (CACC 100 and CACC 406) or (CACC 110 and CACC 410).*

- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CACC 406 Accounting: Introductory Management Accounting
- ▶ CACC 410 Accounting: Management Accounting for Accounting Majors
- ▶ CACC 414 Accounting: Intermediate Accounting I
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CLAW 122 Law: Business Law
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CQMS 202 Quantitative Methods: Business Statistics II

## Admission Application

Students seeking admission to this program are required to complete an application for pre-approval and submit it to the academic coordinator for the Certificate in Financial Planning. To obtain an application visit [www.ryerson.ca/ce](http://www.ryerson.ca/ce) and click on Forms and Documents, or call 416.979.5035. The completed application, together with transcripts, may be presented to the academic coordinator during the Open House, or mailed to the address on the form.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CACC 522 Accounting: Taxation for Managers and Financial Planners
- ▶ CFIN 501 Finance: Investment Analysis
- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CFIN 512 Finance: Risk Management and Insurance
- ▶ CFIN 612 Finance: Retirement and Estate Planning
- ▶ CFIN 812 Finance: Advanced Personal Financial Planning

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CFIN 502 Finance: Personal Financial Planning
- ▶ CFIN 512 Finance: Risk Management and Insurance
- ▶ CFIN 612 Finance: Retirement and Estate Planning
- ▶ CACC 100 Accounting: Introductory Financial Accounting
- ▶ CACC 110 Accounting: Financial Accounting for Accounting Majors
- ▶ CACC 406 Accounting: Introductory Management Accounting
- ▶ CACC 410 Accounting: Management Accounting for Accounting Majors
- ▶ CACC 414 Accounting: Intermediate Accounting I
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CFIN 300 Finance: Managerial Finance I
- ▶ CFIN 401 Finance: Managerial Finance II
- ▶ CLAW 122 Law: Business Law
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CQMS 202 Quantitative Methods: Business Statistics II

## FOOD SECURITY

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The certificate focuses on how to meet the challenge of creating sustainable food systems based on social justice and democratic decision-making that will ensure people's right to food. As such, the program serves anyone with a keen passion in food issues, environmental sustainability, human rights, alleviation of food insecurity, food-related health and education issues, and food policy. Students will go on to work in civil society organization and public sector agencies in Canada and worldwide addressing food issues and also engaging in the private sector to initiate its transformation to a more equitable and sustainable system of production, processing marketing.

### Academic Coordinator:

Reg Noble

For detailed certificate and program information, please visit [www.ryerson.ca/ce/foodsecurity](http://www.ryerson.ca/ce/foodsecurity).

## Admission Requirements

Undergraduate degree in any field, or approval of the academic coordinator and five years of professional experience in a field relevant to food security work, or approval of the academic coordinator and three years' Baccalaureate study with a clear academic standing (at least a C average or GPA of 1.67) is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Assessment

If you wish to apply to register for the Certificate in Food Security, you must first contact the Academic Coordinator, Reg Noble, who will assess whether you are eligible and answer any questions you might have about the program. If you're interested in taking individual courses, Ryerson University's general eligibility rules apply.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CFNY 403 Food Security: Food Security Concepts and Principles
- ▶ CFNY 404 Food Security: Food Policy and Programs for Food Security
- ▶ CFNY 405 Food Security: Applied Research Methods and Evaluation

## Electives (select three)

Students may select only one of CFND 401 or CSOC 808.

- ▶ CFND 401 Foods: Social and Cultural Dimensions of Food
- ▶ CFNF 100 Family Studies: Families and Health
- ▶ CFNN 111 Nutrition: Nutrition for Nursing Practice
- ▶ CFNP 400 Professional Practice: Reflective Practice
- ▶ CFNR 400 Research Methods: Independent Study
- ▶ CFNY 400 Food Security: Selected Topics in Food Security
- ▶ CFNY 406 Food Security: Economics of Food Security
- ▶ CFNY 407 Food Security: Community Development and Food Security
- ▶ CFNY 408 Food Security: Urban Food Security
- ▶ CFNY 409 Food Security: Gender and Food Security
- ▶ CINT 912 Interdisciplinary Studies: Community Development: International Field Experience
- ▶ CSOC 808 Sociology: Food and Foodways
- ▶ CVFN 233 Food Security: How Safe Is Our Food?
- ▶ CVFN 410 Food Security: Understanding Urban Agriculture
- ▶ CVFN 411 Food Security: Dimensions of Urban Agriculture
- ▶ CVFN 412 Food Security: Urban Agriculture Types
- ▶ CVFN 413 Food Security: Urban Agriculture Policy-Making

*Note: CFND 401, CFNP 400, and CFNR 400 are only available in classroom to degree program and special students. For scheduling information, contact the Ryerson School of Nutrition.*

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CFNY 403 Food Security: Food Security Concepts and Principles
- ▶ CFNY 404 Food Security: Food Policy and Programs for Food Security
- ▶ CFNY 405 Food Security: Applied Research Methods and Evaluation
- ▶ CFNN 111 Nutrition: Nutrition for Nursing Practice
- ▶ CFNY 406 Food Security: Economics of Food Security
- ▶ CFNY 407 Food Security: Community Development and Food Security
- ▶ CFNY 408 Food Security: Urban Food Security
- ▶ CFNY 409 Food Security: Gender and Food Security
- ▶ CVFN 410 Food Security: Understanding Urban Agriculture
- ▶ CVFN 411 Food Security: Dimensions of Urban Agriculture
- ▶ CVFN 412 Food Security: Urban Agriculture Types
- ▶ CVFN 413 Food Security: Urban Agriculture Policy-Making

## Course Delivery Schedule

| 2013/14          | FALL | WINTER | SPRING/SUMMER |
|------------------|------|--------|---------------|
| <b>REQUIRED</b>  |      |        |               |
| CFNY 403         | I    | I      | I             |
| CFNY 404         | I    |        | I             |
| CFNY 405         | I    | I      |               |
| <b>ELECTIVES</b> |      |        |               |
| CFND 401         |      |        |               |
| CFNF 100         |      |        |               |
| CFNN 111         |      |        | I             |
| CFNP 400         |      |        |               |
| CFNR 400         |      |        |               |
| CFNY 400         | C    |        | CI            |
| CFNY 406         |      | I      |               |
| CFNY 407         |      |        | I             |
| CFNY 408         |      | I      |               |
| CFNY 409         | I    |        |               |
| CINT 912         |      |        |               |
| CSOC 808         |      |        |               |
| CVFN 233         |      |        |               |
| CVFN 410         |      | I      |               |
| CVFN 411         | I    |        |               |
| CVFN 412         |      |        | I             |
| CVFN 413         |      |        | I             |

**C** Classroom

**CI** Classroom/Internet

**F** Field Study, often international

**I** Distance Education via Internet

**O** Offered only through the degree program.  
Contact the Academic Coordinator, Reg Noble, for more information

*This schedule is subject to revision but can be used as a planning guide.*

## FUNDRAISING MANAGEMENT

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program has been developed to provide students with a sound understanding of the nonprofit and voluntary sector and the role that fundraising can play in support of organizations in this sector. Students will achieve the following:

- ▶ increase their understanding and skills in charitable sector fundraising management
- ▶ develop and implement a wide range of strategies and tactics for a successful and ethical operation of a fundraising program

This program has been developed to prepare aspiring fundraising professionals for career entry, to help managers in charitable organizations expand their fundraising skills, and to provide growth and renewal opportunities for experienced professionals.

### Academic Coordinator:

Cathy Mann

For detailed certificate and program information, please visit [www.ryerson.ca/ce/fundraising](http://www.ryerson.ca/ce/fundraising).

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six single-term courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/ Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

New students are encouraged to begin with CINT 916.

## Required Courses

- ▶ CINF 912 Nonprofit: Marketing for Nonprofit Organizations
- ▶ CINT 916 Interdisciplinary Studies: Introduction to Fundraising
- ▶ CVFM 201 Fundraising Management: Operations of Fundraising
- ▶ CVFM 202 Fundraising Management: Donor Centered Fundraising

## Electives (select two)

- ▶ CVFM 203 Fundraising Management: Fundraising Campaigns
- ▶ CVFM 302 Fundraising Management: Entrepreneurial Fundraising
- ▶ CVFM 303 Fundraising Management: Annual Giving Programs

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CINF 912 Nonprofit: Marketing for Nonprofit Organizations
- ▶ CINT 916 Interdisciplinary Studies: Introduction to Fundraising
- ▶ CVFM 201 Fundraising Management: Operations of Fundraising
- ▶ CVFM 203 Fundraising Management: Fundraising Campaigns
- ▶ CVFM 303 Fundraising Management: Annual Giving Programs

## Course Delivery Schedule

| 2013/14          | FALL | WINTER | SPRING/SUMMER |
|------------------|------|--------|---------------|
| <b>REQUIRED</b>  |      |        |               |
| CINF 912         | I    | C      |               |
| CINT 916         | C, I | C, I   | I             |
| CVFM 201         |      | I      |               |
| CVFM 202         | C    |        |               |
| <b>ELECTIVES</b> |      |        |               |
| CVFM 203         |      |        | I             |
| CVFM 302         |      | C      |               |
| CVFM 303         | I    |        |               |

**C** Classroom

**I** Distance Education via Internet

*This schedule is subject to revision but can be used as a planning guide.*

# GERONTOLOGY

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The Certificate in Gerontology is designed for professionals working with seniors, such as health and medical personnel, nutritionists, occupational therapists, social workers, family counsellors, recreation specialists, community workers, capacity assessors, administrators, urban planners, designers, personnel officers, volunteer workers, and anyone who wishes to learn about the field of aging.

The learning objectives of the certificate in Gerontology include the following:

- ▶ to comprehend the social, psychological, and biological theories that are applied within the field of gerontology, examining both normal and abnormal age-related changes that occur throughout the lifespan and their impact on practice
- ▶ to examine normal and abnormal age-related changes in social, psychological, and biological functioning and evaluate the implications of these changes on the individual's ability to interact with their social and physical environments
- ▶ to identify key changes in social roles, social supports, and policies that occur with aging within the areas of work and retirement, social and familial relationships, housing and environmental design, transportation and healthcare, and the law
- ▶ to recognize the diversity in aging as it relates to ethnicity, culture, gender, and sexuality and its impact on Canadian demography
- ▶ to analyze the current spectrum of cognitive variations associated with aging within the areas of intelligence, problem solving, learning and memory, personality, and mental health
- ▶ to identify and define both the quantitative and qualitative research methods and the significance of research ethics applied within the field of gerontology
- ▶ to identify how research contributes to the knowledge within the field of gerontology and apply the appropriate steps to enable data assembly and data analysis
- ▶ to systematically interpret and critique research findings within the field and determine their implications for the practice of gerontology, and to examine the future trends in gerontology

For detailed certificate and program information, please visit [www.ryerson.ca/ce/gerontology](http://www.ryerson.ca/ce/gerontology).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses or their equivalent, with a cumulative grade point average of 1.67 or higher, is required for certificate completion.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

It is recommended that students working toward the Certificate in Gerontology start with CVGE 140 and CVGE 141, before proceeding with CINT 901 or CVGE 205 and their electives.

## Required Courses

- ▶ CINT 901 Interdisciplinary Studies: Gerontology: Critical Issues and Future Trends
- ▶ CVGE 140 Gerontology: Aging and the Individual
- ▶ CVGE 141 Gerontology: Aging and Society
- ▶ CVGE 205 Gerontology: Understanding Research

## Electives (select two)

- ▶ CGER 298 Gerontology: Ability, Disability and Aging
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CINT 904 Interdisciplinary Studies: Health Promotion and Community Development
- ▶ CPSY 402 Psychology: Adult Development
- ▶ CPSY 802 Psychology: Death, Dying, and Bereavement
- ▶ CSOC 606 Sociology: Work and Families in the 21st Century
- ▶ CVGE 271 Gerontology: Consent, Capacity and Decision Making
- ▶ CVGE 297 Gerontology: Aging and Interpersonal Skills

## Note to registered certificate program students

### Electives

CHSM 307 replaces CVLT 102.

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CINT 901 Interdisciplinary Studies: Gerontology: Critical Issues and Future Trends
- ▶ CVGE 140 Gerontology: Aging and the Individual
- ▶ CVGE 141 Gerontology: Aging and Society
- ▶ CVGE 205 Gerontology: Understanding Research
- ▶ CGER 298 Gerontology: Ability, Disability and Aging
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CINT 904 Interdisciplinary Studies: Health Promotion and Community Development

## GLOBAL DIASPORAS, TRANSNATIONALISM, AND MIGRATION CITIES

This certificate takes a contemporary approach to the phenomena of diaspora by examining the migration of peoples linked to the initial stages of a global economy in the twentieth and twenty-first centuries. The principal focus of the program will be on contemporary diasporas in the context of ever-accelerating globalization. Students will be introduced to the phenomenon of transnationalism—the multiple ties and interactions linking peoples and institutions across the borders of nation states.

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Sequence

Students are required to take the courses in the following sequence:

CODS 101  
CGEO 69I

*Electives (three selections)*

CODS 200

## Required Courses

- ▶ CGEO 69I Geography: Canadian Immigration: Patterns and Place
- ▶ CODS 101 Geography: Diaspora and Transnationalism
- ▶ CODS 200 Geography: Research in Diaspora and Globalized Cities

## Electives (select a total of three courses)

*Electives – Group A (select one or two)*

- ▶ CGEO 108 Geography: Geography of the Global Village
- ▶ CGEO 206 Geography: Regions, Nations and the Global Community
- ▶ CODA 100 Demographic Analysis: Principles of Demographic Analysis

*Electives – Group B (select one or two)*

- ▶ CGEO 720 Geography: The Inner Landscape of Culture
- ▶ CGEO 820 Geography: The Outer Landscape of Culture
- ▶ CODA 110 Demographic Analysis: GIS Applications in Demography

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CODA 100 Demographic Analysis: Principles of Demographic Analysis
- ▶ CODA 110 Demographic Analysis: GIS Applications in Demography

# GLOBAL MANAGEMENT STUDIES

This program is designed for individuals who want to build on their existing cultural knowledge, language advantages, or Canadian business experience to deal effectively with globalization and international business issues. It is a unique experience: a combination of excellent university credit courses to select from and an individual single-term Practicum under the guidance of the academic coordinator.

**Academic Coordinator:**

Carlyle Farrell

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status. Eligible applicants must also have completed the following courses or equivalents:

- ▶ CGMS 200 Global Management: Introduction to Global Management
  - ▶ CGMS 401 Global Management: Operations Management
  - ▶ CMKT 100 Marketing: Principles of Marketing
- Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, including a single-term Practicum, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CGMS 522 Global Management: International Marketing
- ▶ CGMS 723 Global Management: International Trade
- ▶ CGMS 724 Global Management: Management of International Enterprise
- ▶ CZIB 100 International Business: Practicum in International Business

## Electives (select two)

- ▶ CFIN 621 Finance: International Finance
- ▶ CGMS 450 Global Management: Project Management
- ▶ CGMS 601 Global Management: International Economics
- ▶ CGMS 690 Global Management: The North American Business Environment
- ▶ CGMS 691 Global Management: The Asian Business Environment
- ▶ CGMS 692 Global Management: The European Business Environment
- ▶ CGMS 695 Global Management: The Middle Eastern Business Environment
- ▶ CGMS 802 Global Management: Ethics and Regulation of Intr'l Bus
- ▶ CGMS 805 Global Management: Manufacturing Management
- ▶ CLAW 724 International Business Law: Legal Aspects of International Business

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CGMS 691 Global Management: The Asian Business Environment
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CGMS 401 Global Management: Operations Management
- ▶ CMKT 100 Marketing: Principles of Marketing

## Professional Development

You can receive an acknowledgement of professional achievement once you have successfully completed three courses as follows:

**Professional Development Award: Entering Foreign Markets** requires completion of CGMS 522, CGMS 723, and CGMS 724.

The three courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Global Management Studies certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the three courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the three courses you have completed. Upon verification, you will receive your professional development award.

## GRAPHIC COMMUNICATIONS

Graphic communications is one of the most dynamic and exciting industries in Canada today. The preparation of layouts, files, proofs, and finished jobs in the printing industry requires the use of advanced hardware, software, and technology. Knowledgeable and skilled professionals in the field are rewarded with challenging opportunities.

This certificate is of particular interest to individuals who wish to enhance their ability to advance professionally and to those seeking the necessary knowledge and skills to make a career change into the graphic communications industry. Students may enroll directly into entry-level courses. No interview or portfolio is required.

### Admission Requirements

OSSD with six Grade 12 U or M credits, with minimum average of 60 percent, or equivalent, or mature student status with relevant professional experience is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of seven courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CDGA 651 Graphic Communications: Graphic Communications Processes
- ▶ CGRA 102 Graphic Communications: Layout and Typography I
- ▶ CGRA 103 Graphic Communications: Introduction to Electronic Premedia I
- ▶ CGRA 104 Graphic Communications: Printing Processes I

## Electives (select three)

- ▶ CGRA 116 Graphic Communications: Estimating in the Graphic Arts
- ▶ CGRA 202 Graphic Communications: Layout and Typography II
- ▶ CGRA 203 Graphic Communications: Introduction to Electronic Premedia II
- ▶ CGRA 204 Graphic Communications: Printing Processes II
- ▶ CGRA 230 Graphic Communications: Selling in the Graphic Arts
- ▶ CGRA 320 Graphic Communications: Binding and Finishing I

## Advanced Standing

Students who successfully complete the Certificate in Graphic Communications and two single-term Liberal Studies courses from Table A (see the Ryerson Undergraduate Program Calendar at [www.ryerson.ca/calendar](http://www.ryerson.ca/calendar) for more information), and the two courses CGMS 200 and CCMN 279, may be considered, subject to an interview and normal program admission criteria and procedures, for direct entry into the second year of the Graphic Communications Management degree program.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CGRA 102 Graphic Communications: Layout and Typography I
- ▶ CGRA 116 Graphic Communications: Estimating in the Graphic Arts
- ▶ CGRA 230 Graphic Communications: Selling in the Graphic Arts

# HEALTH INFORMATICS

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The demand for skilled workers in the field of Health Informatics is growing rapidly in response to the need to deliver less expensive and higher quality health care. Designed for Canadian and internationally educated professionals who have a background in health or information technology, the program allows you to choose courses that will give you the skills you need for this expanding field.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/healthinformatics](http://www.ryerson.ca/ce/healthinformatics).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status, and a minimum of one years' related professional experience in the health or information technology sectors is required.

## Admission Application

Students seeking admission to this program are required to complete an application for pre-approval and submit it to the academic coordinator. To obtain an application, visit Forms and Documents. The completed application, together with transcripts, may be presented to the academic coordinator during the Open House, or mailed to the address on the form.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses (four required courses and four electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CHIT 100 Health Informatics: Introduction to Health Informatics
- ▶ CHIT 201 Health Informatics: Healthcare Interoperability
- ▶ CHIT 300 Health Informatics: Introduction to Healthcare Human Computer Interface
- ▶ CHSM 301 Health Services Management: The Healthcare Systems

## Electives (select four)

Students should select either CHIM 300 or CHSM 305, but not both, as they contain similar content.

Students should select CMHR 405 if they wish to pursue CMHR 650 as CHSM 437 does not provide a prerequisite for CMHR 650.

- ▶ CHIM 300 Health Information Management: Managing Health Information Services
- ▶ CHIM 301 Health Information Management: Healthcare Information Analysis
- ▶ CHIM 404 Health Information Management: Health Economics
- ▶ CHIM 405 Health Information Management: Issues in Health Information Management
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 437 Health Services Management: Human Resources Management in Healthcare
- ▶ CITM 207 Health Informatics: Computer-Enabled Problem Solving
- ▶ CITM 301 Information Technology Management: IT Infrastructure
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 410 Information Technology Management: Business Process Design
- ▶ CITM 500 Information Technology Management: Data and Information Management

| Core Knowledge<br>(4 Required Courses)   | » | CHIT 100   | CHIT 201 | CHIT 300                | CHSM 301 |  |
|--|---|--|----------|-------------------------|----------|--|
| <b>Elective Streams</b><br>(4 Courses, depending on professional background)<br><br>Specialized content to supplement students' skills and knowledge, as well as support their individual professional goals | » | <b>Healthcare Professionals</b>                  |          | <b>IT Professionals</b> |          |  |
|  |   | CITM 207   |          | CHIM 300                |          |  |
|  |   | CITM 301   |          | CHIM 301                |          |  |
|  |   | CITM 305   |          | CHSM 305                |          |  |
|  |   | CITM 410   |          | CHSM 306                |          |  |
|  | » | IT Focus<br>(may select 2 CITM courses)          |          | CITM 500                |          |  |
|  |   | HR Focus<br>(may select CMHR courses)            |          | CITM 750                |          |  |
|  |   | Policy Focus<br>(may select CZLW courses)        |          | CMHR 405                |          |  |
|  |   |  |          | CMHR 650                |          |  |
|  | » | Health System Focus<br>(may select CHIM courses) |          | CZLW 100                |          |  |
|  |   |  |          | CZLW 110                |          |  |
|  |   |  |          | CHIM 404                |          |  |
|  |   |  |          | CHIM 405                |          |  |
|  |   |  |          | CHSM 437                |          |  |

## HEALTH SERVICES MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program provides management education for the health service industry both now and in the foreseeable future. This program provides an opportunity for current and potential health care managers to increase their knowledge and skills in significant aspects of health service provision. Many of the courses in the Health Services Management certificate program qualify for exemptions in the part-time degree completion program in Health Services Management (see the Ryerson Undergraduate Part-Time Degree Studies Calendar at [www.ryerson.ca/calendar](http://www.ryerson.ca/calendar) for more information).

**Academic Coordinator:**  
Winston Isaac, [wisac@ryerson.ca](mailto:wisac@ryerson.ca)

### Admission Requirements

OSSD with six Grade 12 U or M credits or equivalent or mature student status and a minimum of three years in a health services organization; OR a Community College diploma in a related health services field; AND the approval of the academic coordinator are required. An interview may be required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of nine courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. Up to four course credits may be granted on the basis of courses successfully completed at other institutions.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

- ▶ CITM 505 Information Technology Management: Managing Information Systems
- ▶ CITM 750 Information Technology Management: IT Project Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 650 Human Resources: Management of Change
- ▶ CZLW 100 Law: Information Access and Protection of Privacy
- ▶ CZLW 110 Law: Health Information Access and Privacy

### Note to registered certificate program students

#### Electives

CHIM 301, CHSM 306, CHSM 437, CITM 207, and CTM 305 added.

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CHIT 100 Health Informatics: Introduction to Health Informatics
- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHIM 300 Health Information Management: Managing Health Information Services
- ▶ CHIM 301 Health Information Management: Healthcare Information Analysis
- ▶ CHIM 404 Health Information Management: Health Economics
- ▶ CHIM 405 Health Information Management: Issues in Health Information Management
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CITM 207 Health Informatics: Computer-Enabled Problem Solving
- ▶ CITM 301 Information Technology Management: IT Infrastructure
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 750 Information Technology Management: IT Project Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 650 Human Resources: Management of Change

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses (select six)

\*Students may select only one of CHSM 407 or CVNU 321. Students who wish to progress to the degree program should take CHSM 407. Students seeking the certificate only may take CVNU 321, which has no prerequisite.

- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 326 Health Services Management: Law for Health Managers
- ▶ CHSM 407 Health Services Management: Financial Management
- ▶ CHSM 437 Health Services Management: Human Resources Management in Healthcare
- ▶ CVNU 321 Nursing: Financial Management

### Electives (select three)

- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CHSM 308 Health Services Management: Project Management - Long Term Care
- ▶ CHSM 309 Health Services Management: Trends in Long Term Care Service Delivery
- ▶ CHSM 310 Health Services Management: Institutional Structure
- ▶ CHSM 408 Health Services Management: Program Planning and Evaluation
- ▶ CHSM 417 Health Services Management: Research Methodology

### Note to registered certificate program students

#### *Electives*

CHSM 408 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 326 Health Services Management: Law for Health Managers
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CHSM 309 Health Services Management: Trends in Long Term Care Service Delivery
- ▶ CHSM 408 Health Services Management: Program Planning and Evaluation
- ▶ CHSM 417 Health Services Management: Research Methodology

# HEALTH STUDIES

The Certificate in Health Studies is comprised of specially selected courses from other health-related Chang School certificate programs, such as Health Informatics, Health Services Management, Ethics, Psychology, and Gerontology. It provides a diverse set of courses that can fill gaps in your knowledge and skill set. If you are looking for depth in a particular area of study, you may instead choose to take the appropriate other health-related certificate. The Health Studies certificate will provide flexibility to choose courses that meet your professional development needs while allowing the opportunity to earn a certificate.

## Admission Requirements

OSSD with six OAC credits or Grade 12 U or M credits, or equivalent, or mature student status. Completion of the professional development award will qualify students for entry into the certificate.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Course

- ▶ CHSM 301 Health Services Management: The Healthcare Systems

## Electives

Students select a total of five electives from one or more of the five streams.

### Open to all streams

Students may select only one of CCMN 279 or CCMN 314.

- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CCMN 314 Communication: Professional Presentations

### Health Informatics Stream

- ▶ CHIT 100 Health Informatics: Introduction to Health Informatics
- ▶ CHIT 201 Health Informatics: Healthcare Interoperability
- ▶ CHIT 300 Health Informatics: Introduction to Healthcare Human Computer Interface
- ▶ CZLW 110 Law: Health Information Access and Privacy

### Health Services Management Stream

- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 330 Health Services Management: Managerial Epidemiology for Healthcare
- ▶ CHSM 437 Health Services Management: Human Resources Management in Healthcare

### Health Ethics Stream

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

- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 334 Philosophy: Ethics in Professional Life
- ▶ CPHL 444 Philosophy: Ethics in Health Services Management
- ▶ CPHL 509 Philosophy: Bioethics
- ▶ CPHL 602 Philosophy: Health Care and Distributive Justice

### Gerontology Stream

- ▶ CINT 904 Interdisciplinary Studies: Health Promotion and Community Development
- ▶ CVGE 140 Gerontology: Aging and the Individual
- ▶ CVGE 141 Gerontology: Aging and Society

### Psychology Stream

Students may select only one of CPSY 102 or CPSY 105.

- ▶ CPSY 102 Psychology: Introduction to Psychology I
- ▶ CPSY 105 Psychology: Perspectives in Psychology
- ▶ CPSY 325 Psychology: Psychological Disorders
- ▶ CPSY 605 Psychology: Psychology of Health and Health Care
- ▶ CPSY 607 Psychology: Drugs and Human Behaviour
- ▶ CPSY 802 Psychology: Death, Dying, and Bereavement
- ▶ CPSY 805 Psychology: Adjustment, Stress and Coping
- ▶ CPSY 808 Psychology: Community Psychology

## Note to registered certificate program students

This certificate has been revised effective July 1, 2013. Students who formally registered in the certificate prior to July 1, 2013, must complete the program requirements in effect at the time they registered.

The following changes thus reduce the number of courses for certificate requirement from eight to six.

### Required Courses

CDCE 400 deleted, thereby reducing the number of Required Courses to one.

### Electives

CCMN 279, CCMN 314, CHSM 330, CINT 904, CPHL 302, CPHL 334, CPHL 444, CPHL 509, CPHL 602, CPSY 102, CPSY 105, CPSY 325, CPSY 605, CPSY 607, CPSY 802, CPSY 805, CPSY 808, CVGE 140, CVGE 141, and CZLW 110 added.

Electives have been increased to five.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CCMN 279 Communication: Introduction to Professional Communication
- ▶ CINT 904 Interdisciplinary Studies: Health Promotion and Community Development
- ▶ CVGE 140 Gerontology: Aging and the Individual
- ▶ CVGE 141 Gerontology: Aging and Society
- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 509 Philosophy: Bioethics
- ▶ CHIT 100 Health Informatics: Introduction to Health Informatics
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 330 Health Services Management: Managerial Epidemiology for Healthcare
- ▶ CPSY 325 Psychology: Psychological Disorders
- ▶ CPSY 607 Psychology: Drugs and Human Behaviour

## Professional Development

You can receive an acknowledgement of professional achievement once you have successfully completed three courses as follows:

**Professional Development Award: Health Ethics** requires completion of three courses: (CPHL 302 or CPHL 509), or CPHL 334, or CPHL 444, or CPHL 602.

**Professional Development Award: Health Informatics** requires completion of three courses: CHIT 100, or CHIT 201, or CHIT 300, or CZLW 110.

**Professional Development Award: Health Services Management** requires completion of CHSM 305, CHSM 306, and CHSM 437.

The three courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Health Studies certificate or to an applicable health-related certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the three courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the three courses you have completed. Upon verification, you will receive your professional development award.

# HUMAN RESOURCES MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program provides comprehensive education in current human resources management techniques. It is ideal for human resources management professionals who wish to expand or update their skills, and for those seeking employment in the human resources field.

Many of the courses in the Human Resources Management certificate program may qualify for exemptions in the Certified Human Resources Professional (CHRP) designation offered by the Human Resources Professionals Association (HRPA) ([www.hrpa.ca](http://www.hrpa.ca)).

For detailed certificate and program information, please visit [www.ryerson.ca/ce/hrmanagement](http://www.ryerson.ca/ce/hrmanagement).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status, with some experience in business is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. Up to three course credits may be granted on the basis of courses successfully completed at other institutions.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 523 Human Resources: Human Resources Management

## Electives (select four)

- ▶ CLAW 529 Law: Employment and Labour Law
- ▶ CMHR 505 Human Resources: Organizational Behaviour II
- ▶ CMHR 522 Human Resources: Industrial Relations
- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ CMHR 623 Human Resources: Recruitment and Selection (Staffing)
- ▶ CMHR 670 Human Resources: Special Topics in Org Behav and HR Mgmt
- ▶ CMHR 671 Human Resources: Human Resources Information Systems
- ▶ CMHR 711 Human Resources: Occupational Health and Safety
- ▶ CMHR 733 Human Resources: Training and Development
- ▶ CMHR 749 Human Resources: Compensation Management
- ▶ CMHR 849 Human Resources: Human Resources Planning

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMHR 505 Human Resources: Organizational Behaviour II
- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ CMHR 733 Human Resources: Training and Development
- ▶ CMHR 749 Human Resources: Compensation Management

# IBM MAINFRAME SYSTEM Z COMPUTING

Mainframe computers are complex hardware systems used by large corporations and government institutions for mission critical applications such as intensive data processing, management information systems, financial transaction processing, manufacturing control systems, and managing large databases including census statistics and financial data. Mainframe computers, a significant segment of the IBM product line, are used for large scale simultaneous processing of very large information databases. Security of data warehousing and accuracy of processing are of paramount importance. Mainframes require sophisticated and specialized computer programming management and maintenance.

This certificate, developed in partnership with IBM Canada, provides learners with a thorough overview of the Mainframe environment, including hardware systems, workflows, end-user interfaces, programming, and data management. The curriculum has been designed to provide graduates with comprehensive theoretical and practical knowledge in basic and advanced Mainframe computing, focusing on the z/OS environment.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/mainframe](http://www.ryerson.ca/ce/mainframe).

## Admission Requirements

Eligible applicants must have completed an undergraduate degree in Computer Science or a related field, or have clear academic standing in the final year of such a degree program or have significant related employment experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Process

Applicants must complete and submit an application for pre-approval and be approved before registering for the first course. In addition, applicants wishing to enroll in the first course must provide a resume listing employment experience, copies of credentials of academic standing, and certification documents. For further information about program requirements, please contact the Program Manager, Janet Shusterman, at 416.979.5000, ext. 7907.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (one required course and five electives), with a cumulative grade point average of 1.67 or higher is required to earn the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CKCS 191 Mainframe Computing: Introduction to Mainframe Computing z/OS Environment

## Electives (select five)

- ▶ CKCS 192 Mainframe Computing: Mainframe Application Programming ASSEMBLER
- ▶ CKCS 193 Mainframe Computing: Mainframe Application Programming COBOL
- ▶ CKCS 194 Mainframe Computing: Mainframe Batch Programming JCL
- ▶ CKCS 195 Mainframe Computing: Mainframe Online Programming: CICS
- ▶ CKCS 196 Mainframe Computing: Mainframe Database Management Systems DB2
- ▶ CKCS 197 Mainframe Computing: Websphere Application Server on z/OS

# IMAGE ARTS (WITH SPECIALIZATIONS IN FILM STUDIES, NEW MEDIA, OR PHOTOGRAPHY STUDIES)

This certificate is designed to lead to careers in the film, photography, new media, communications, and cultural industries. Graduates should be capable of performing responsibly in these industries as professionals in both creative and managerial positions, and in undertakings ranging from the highly commercial to the artistic and experimental. The curriculum will also provide students with the necessary grounding to move on to advanced study in a variety of media-related academic and artistic disciplines.

This program provides a general background in design, art history, and cultural studies, along with professional specialization in the three areas of Film, New Media, and Photography Studies. There is a strong link between theory and practice in each of these options.

Successful completion of the certificate in Film Studies or Photography Studies will make a student eligible to apply for admission to the second year of the related Image Arts degree program, subject to space availability and competition. These students will also be required to take the appropriate Liberal Studies courses.

## Film Studies Coordinator:

James Warrack, [jwarrack@ryerson.ca](mailto:jwarrack@ryerson.ca)

## New Media Coordinator:

Rhonda Abrams, [rabrams@ryerson.ca](mailto:rabrams@ryerson.ca)

## Photography Studies Coordinator:

Dennis Miles, [dmiles@ryerson.ca](mailto:dmiles@ryerson.ca)

For detailed certificate and program information, please visit [www.ryerson.ca/ce/imagearts](http://www.ryerson.ca/ce/imagearts).

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English), or equivalent, with a minimum average of 60 percent, or mature student status with relevant professional experience is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight single-term (or equivalent) courses is required for the certificate, as listed in each option.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Equipment/Facilities Use

Please note that equipment and facilities use outside of class time will not be provided. Extra time may be purchased.

## Required Courses

- ▶ CMPC 101 New Media: Visual Studies I
  - ▶ CMPC 103 New Media: Art and the Classical Tradition
  - ▶ CMPC 201 New Media: Concepts and Theories
  - ▶ CMPC 203 New Media: Art in the Modern World
- This certificate offers concentrations in either Film Studies, New Media, or Photography Studies. Students must fulfill the requirements of one of these three areas as listed below.

## Specialization in Film Studies

- ▶ CDMP 117 Film Studies: Film Technology I
- ▶ CDMP 118 Film Studies: Film and Sound Editing I
- ▶ CDMP 129 Film Studies: Motion Picture Production I

## Specialization in New Media

- ▶ CDNM 109 New Media: Introduction to Web Presentation
- ▶ CDNM 121 New Media: Introduction to Interaction Design
- ▶ CDNM 209 New Media: Flash for New Media
- ▶ CDNM 221 New Media: Video and Audio for New Media

## Specialization in Photography

- ▶ CDFP 328 Photography: Photography Production I
- ▶ CDFP 329 Photography: Photography Production II
- ▶ CDFP 333 Photography: Photography and Digital Imaging
- ▶ CDFP 358 Photography: Photography and the Web

## Note to registered certificate program students

### Required Courses

CMPC 101 replaces CDNM 113.  
 CMPC 103 replaces CDNM 110.  
 CMPC 201 replaces CDNM 111.  
 CMPC 203 replaces CDNM 210.  
 CDNM 211 and CDNM 213 deleted.

### Specialization in Film Studies

CDMP 118 replaces CDMP 223.

### Specialization in New Media

CDNM 112, CDNM 116, CDNM 212, CDNM 214, and CDNM 322 deleted.  
 CDNM 109, CDNM 209, CDNM 121, and CDNM 221 added.

### Specialization in Photography

CDFP 328 replaces CDFP 320.  
 CDFP 329 replaces CDFP 321.  
 CDFP 333 replaces CDFP 385.  
 CDFP 358 replaces CDFP 386.

## INDUSTRIAL ORGANIZATION AND POLICY

The Certificate in Industrial Organization and Policy is designed to provide students with the analytic and quantitative skills that are necessary to gain experience in the theory and practice of industrial organization and in other related fields of economics.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

### Academic Coordinator:

Michael Jolly

### Admission Requirements

OSSD with six Grade 12 U (including Grade 12 U credits in English and Mathematics) or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 501 Economics: Industrial Organization
- ▶ CECN 504 Economics: Intermediate Microeconomics I

## Electives (select three)

- ▶ CECN 189 Economics: Introduction to Mathematics for Economics
- ▶ CECN 230 Economics: Mathematics for Economics
- ▶ CECN 321 Economics: Introduction to Law and Economics
- ▶ CECN 329 Economics: Statistics for Economics II
- ▶ CECN 601 Economics: The Economics of Information
- ▶ CECN 614 Economics: An Introduction to Game Theory
- ▶ CECN 700 Economics: Intermediate Microeconomics II

## Note to registered certificate program students

### Electives

CMTH 240 deleted.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 321 Economics: Introduction to Law and Economics

# INFORMATION SYSTEMS MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

Virtually every type of business today relies on information technology. Whether banking online, ordering a pizza, monitoring patients in a hospital, or publishing a newspaper, organizations must develop systems that serve their customers and help them succeed. Computers, the Internet, wireless communications, databases – all are forms of information technology which are used to collect, analyze, and share information. Information systems management examines how this technology can be used effectively in an ever-changing business context. Courses focus on how to develop and manage information systems to meet the strategic needs of business and government. This certificate stands alone as an introduction to the IT management field, but it also provides a smooth transition either to another more specialized certificate or to the Information Technology Management degree program. All courses can be credited toward Ryerson's Bachelor of Commerce (Information Technology Management) degree program.

For further information about the program, please contact The Chang School at 416.979.5035, or attend a Program Open House.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/itm](http://www.ryerson.ca/ce/itm).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CITM 100 Information Technology Management: Foundations of Information Systems
- ▶ CITM 207 Health Informatics: Computer-Enabled Problem Solving
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 410 Information Technology Management: Business Process Design

## Electives (select two)

- ▶ CITM 200 Information Technology Management: Fundamentals of Programming
- ▶ CITM 301 Information Technology Management: IT Infrastructure
- ▶ CITM 350 Information Technology Management: Concepts of e-Business
- ▶ CITM 407 Information Technology Management: Info Tech, Ethics, and Society
- ▶ CITM 500 Information Technology Management: Data and Information Management
- ▶ CITM 750 Information Technology Management: IT Project Management

## Note to registered certificate program students

This certificate has been revised effective July 1, 2012. Students who formally registered in the certificate prior to July 1, 2012, must complete the program requirements in effect at the time they registered.

The addition of CITM 207 increases the number of required courses for certificate completion from three to four. The number of elective courses has been reduced from three to two.

### Required

CITM 207 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CITM 207 Health Informatics: Computer-Enabled Problem Solving
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 301 Information Technology Management: IT Infrastructure
- ▶ CITM 350 Information Technology Management: Concepts of e-Business
- ▶ CITM 750 Information Technology Management: IT Project Management

# INFRASTRUCTURE ASSET MANAGEMENT AND RENEWAL

This certificate program provides adult learners with the opportunity to acquire a comprehensive knowledge of and expertise in the fundamental processes and techniques required to establish and run an effective asset management program, including developing solutions associated with asset management, evaluation, preservation and rehabilitation of existing infrastructure, repair materials and strategies, and risk, fiscal, and sustainability management best practices. When dealing with deteriorating buildings, tunnels, water towers, bridges, and public transit systems, together with naturally deteriorating and inadequate bridges and roads, participants will learn to apply holistic, systematic, and risk-based processes to decision making concerning the management and renewal of government, public, and private enterprise physical assets, including infrastructure, fixed plant, and mobile equipment.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/infrastructure](http://www.ryerson.ca/ce/infrastructure).

## Admission Requirements

Mature student status and evidence of relevant college or university level coursework, or equivalent

OR

Mature student status together with relevant industrial or professional experience

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CKAM 100  
CKAM 110  
CKAM 120  
CKAM 130  
CKAM 140  
CKAM 150

## Required Courses

- ▶ CKAM 100 Infrastructure Asset Management: Infrastructure Asset Management Fundamentals
- ▶ CKAM 110 Infrastructure Asset Management: Infrastructure Asset Financial Management and Practices
- ▶ CKAM 120 Infrastructure Asset Management: Engineering Risk Management
- ▶ CKAM 130 Infrastructure Asset Management: Infrastructure Asset Maintenance, Planning and Scheduling
- ▶ CKAM 140 Infrastructure Asset Management: Infrastructure Asset Evaluation and Rehabilitation
- ▶ CKAM 150 Infrastructure Asset Management: Infrastructure Project Evaluation

# INTERIOR DESIGN, FUNDAMENTALS OF

Interior designers work in a dynamic, imaginative, and complex industry combining technological knowledge with artistic vision. This certificate is intended for individuals interested in the fundamentals of interior design:

- ▶ those who are considering interior design as a possible career and are prepared to enter a full-time interior design program upon completion of the certificate
- ▶ those who have a general interest in interior design

Students should be aware that professional interior designers require membership in the Association of Registered Interior Designers of Ontario ([www.arido.ca](http://www.arido.ca)). Membership is extended only to graduates of degree and diploma programs in recognized schools of interior design who have several years' experience and who successfully complete the Association's qualifying examinations.

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English and Mathematics), with a minimum average of 60 percent, or equivalent, or mature student status is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of seven courses (four required courses and three electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate. In determining the order of courses within the program, students should note carefully the prerequisite requirements listed with each course.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into

the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CDID 150 Interior Design: Design Theory
- ▶ CDID 151 Interior Design: Interior Design I: Drafting
- ▶ CDID 152 Interior Design: Interior Design I: Space Planning
- ▶ CIRC 112 Interior Design: Communications I

## Electives (select three)

- ▶ CDID 153 Interior Design: Interior Materials and Finishes
- ▶ CDID 155 Interior Design: Design Dynamics I: Portfolio I
- ▶ CDID 157 Interior Design: Kitchen and Bathroom Design
- ▶ CIRC 113 Interior Design: Communications II
- ▶ CIRH 101 Interior Design: History of Design I

# INTERNATIONALLY-EDUCATED ENGINEERS QUALIFICATION BRIDGING (IEEQB) PROGRAM

The Faculty of Engineering, Architecture, and Science at Ryerson University has developed the Internationally-Educated Engineers Qualification Bridging (IEEQB) Program specifically for internationally-educated engineers to provide them with an opportunity to meet the academic requirements for professional engineering licensure in Ontario.

# INTRODUCTORY INTERNATIONAL ECONOMICS

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The Certificate in Introductory International Economics is designed to equip students with skills in international economic analysis. It provides a thorough grounding in economic theory and access to applied courses dealing with a variety of important issues of relevance to international economic affairs.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

**Academic Coordinator:**  
Michael Jolly

## Admission Requirements

OSSD with six Grade 12 U (including Grade 12 U credits in English and Mathematics) or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/

Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 301 Economics: Intermediate Macroeconomics I
- ▶ CECN 504 Economics: Intermediate Microeconomics I

## Electives (select three)

- ▶ CECN 220 Economics: Evolution of the Global Economy
- ▶ CECN 330 Economics: Economic Systems in the New World Economy
- ▶ CECN 501 Economics: Industrial Organization
- ▶ CECN 503 Economics: Economic Development
- ▶ CECN 606 Economics: International Monetary Economics
- ▶ CECN 609 Economics: Topics in Economic History
- ▶ CECN 707 Economics: Economics of International Trade
- ▶ CECN 802 Economics: The Economies of East Asia

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 606 Economics: International Monetary Economics
- ▶ CECN 707 Economics: Economics of International Trade
- ▶ CECN 802 Economics: The Economies of East Asia

# LABORATORY MANAGEMENT AND PRACTICES

## Formerly: Laboratory Practices Management

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program, offered online, has been developed for professionals currently practicing or anticipating careers in science-related fields. This program has been designed to equip graduates with managerial skills combined with practical knowledge (ranging from safety, environmental awareness, standards and regulations, specialized information technology systems, effective communications, record keeping, and technical writing) that laboratory work requires.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/labpractices](http://www.ryerson.ca/ce/labpractices).

## Admission Requirements

Applicants must meet one of the following criteria:

Undergraduate degree in a relevant field (e.g., Chemistry, Biology, Physics, or Environmental or Earth Science) with a GPA of 2.0, or equivalent

OR

A post-secondary diploma with a GPA of 2.0, or equivalent

OR

Three years of professional practice in a laboratory setting in a technical capacity

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of 12 19.5-hour courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses

- ▶ CKLP 100 Laboratory Practice: Professional Laboratory Practice
- ▶ CKLP 110 Laboratory Practice: Standards and Good Practices
- ▶ CKLP 120 Laboratory Practice: Intro to Lab Project Management
- ▶ CKLP 130 Laboratory Practice: Intro to Laboratory Regulations
- ▶ CKLP 140 Laboratory Practice: Laboratory and Research Ethics
- ▶ CKLP 150 Laboratory Practice: Sample Management
- ▶ CKLP 160 Laboratory Practice: Laboratory Info Management
- ▶ CKLP 170 Laboratory Practice: Data Handling

### Electives (select four)

- ▶ CKLP 180 Laboratory Practice: Applied Technical Writing
- ▶ CKLP 190 Laboratory Practice: Skills for Professional Practice
- ▶ CKLP 200 Laboratory Practice: Intro to Intellectual Property
- ▶ CKLP 210 Laboratory Practice: Laboratory Quality Processes
- ▶ CKLP 220 Laboratory Practice: Independent Study I
- ▶ CKLP 230 Laboratory Practice: Independent Study II
- ▶ CKLP 240 Laboratory Practice: Fundamentals of Clinical Research
- ▶ CKLP 250 Laboratory Practice: Current Topics in Lab Science

### Note to registered certificate program students

Effective Fall 2013, the Certificate in Laboratory Practices Management has been revised to Laboratory Management and Practices. Students who were formally registered in the certificate prior to July 1, 2013, must complete the requirements in effect at the time of their registration.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKLP 100 Laboratory Practice: Professional Laboratory Practice
- ▶ CKLP 110 Laboratory Practice: Standards and Good Practices
- ▶ CKLP 120 Laboratory Practice: Intro to Lab Project Management
- ▶ CKLP 130 Laboratory Practice: Intro to Laboratory Regulations
- ▶ CKLP 140 Laboratory Practice: Laboratory and Research Ethics
- ▶ CKLP 150 Laboratory Practice: Sample Management
- ▶ CKLP 160 Laboratory Practice: Laboratory Info Management
- ▶ CKLP 170 Laboratory Practice: Data Handling
- ▶ CKLP 180 Laboratory Practice: Applied Technical Writing
- ▶ CKLP 200 Laboratory Practice: Intro to Intellectual Property
- ▶ CKLP 210 Laboratory Practice: Laboratory Quality Processes
- ▶ CKLP 240 Laboratory Practice: Fundamentals of Clinical Research

# LANDSCAPE DESIGN

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

Landscape Design combines the fields of art, science, and humanities. Landscape designers focus on designing and restoring sustainable public and private outdoor spaces. Their services are sought in the residential, commercial, and public sectors.

Whether you are just beginning or continuing your education in Landscape Design, this certificate offers an excellent education in the fundamental components that comprise the field of landscape design. Through course offerings, you will learn how to analyze, plan, design, manage, and sustain the built and natural environment.

Courses are offered in a combination of lectures, field trips, studios, seminars, and other interactive learning opportunities. Our distance education courses continue to be developed and are available on the Internet.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/landscape](http://www.ryerson.ca/ce/landscape).

## Admission Requirements

Applicants admitted to this program will normally possess a post-secondary undergraduate education (university or college) in a relevant field of study including programs related to architecture and or environmental sciences or mature student status with relevant work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

*Note: the Program Open House for the Landscape Design certificate program is held along with Engineering, Architecture, and Science.*

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

For further information about the program, please contact the Acting Academic Coordinator, Sam Benvie at [sbenvie@ryerson.ca](mailto:sbenvie@ryerson.ca).

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ).

For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Sample Certificate Completion Models

Certificate-completion models offer combinations of courses that have been developed to assist you in completing your certificate in three, four, or six terms. Planning your studies according to one of these models allow you to complete your certificate a pace suitable to you. Both online and classroom certificate-completion models are available.

## Required Courses

The order in which the required courses are taken should be considered carefully so as to meet the prerequisites for the desired elective courses.

- ▶ CKLA 300 Landscape Design: Landscape Design Communications and Theory
- ▶ CKLA 310 Landscape Design: Landscape Construction, Materials and Methods
- ▶ CKLA 320 Landscape Design: Plant Materials
- ▶ CKLA 330 Landscape Design: Landscape Design Studio

## Electives (select two)

- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKLA 420 Landscape Design: Art and Management of Planting Design
- ▶ CKLA 430 Landscape Design: Making and Meaning of Landscapes
- ▶ CKLA 440 Landscape Design: Digital Landscape Design
- ▶ CKLA 450 Landscape Design: Landscape Restoration

## Alternative Formats of Instruction

A number of courses in this program are available in a variety of alternative accelerated formats, beyond the typical 13-week, one evening per week class. Classes may be offered two evenings a week for six weeks; three evenings a week for four weeks; or every day for a full week. Please refer to specific course descriptions to see which formats the courses will be offered in during each term.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKLA 300 Landscape Design: Landscape Design Communications and Theory
- ▶ CKLA 310 Landscape Design: Landscape Construction, Materials and Methods
- ▶ CKLA 320 Landscape Design: Plant Materials
- ▶ CKLA 330 Landscape Design: Landscape Design Studio
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 410 Landscape Design: Horticultural Science
- ▶ CKLA 420 Landscape Design: Art and Management of Planting Design

## LIGHTING DESIGN

This multidisciplinary certificate is designed to provide students with the broad knowledge base and wide range of skills required as professionals in the lighting industry. Changes are taking place in the lighting industry, largely centred around increased legislative acts limiting energy budgets for new construction, retrofitting and the need for designing buildings which are environmentally responsible and ergonomically sound, and with enhanced vision for health and safety. New information is available, new technologies have been developed, new methodologies exist, and new questions are emerging as the building industry works toward an integration of architecture, engineering and resource management, and the concerns for health and safety are moved to the forefront in design.

The Certificate in Lighting Design is of particular interest to those persons who are seeking to enhance their knowledge and skill in the art and science of lighting design and who are degree graduates of one of either Architecture or Landscape Architecture, Engineering, Interior Design, or Theatre Design and Production.

Graduates of other programs such as Business, Fashion, and Radio and Television Arts, or individuals without degrees, but with a satisfactory level of education and experience in the lighting industry, may also be eligible with the approval of the academic coordinator.

### Admission Requirements

Undergraduate degree or mature student status with related professional experience and education is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Course Prerequisites

Successful completion of all stated prerequisites is required for registration in a course. Students who register in a course without successful completion of the prerequisites will be required to withdraw.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The certificate will require the completion of seven courses, with a cumulative grade point average of 1.67 or higher.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration,

registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/ Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CDID 501 Lighting Design: Lighting Fundamentals
- ▶ CDID 502 Lighting Design: Human Factors in Lighting
- ▶ CDID 503 Lighting Design: Introduction to Lighting Design
- ▶ CDID 504 Lighting Design: Lighting Energy Management
- ▶ CDID 550 Lighting Design: Introduction to Daylighting Design
- ▶ CDID 551 Lighting Design: Advanced Lighting Design

## Electives (select one)

- ▶ CDID 552 Lighting Design: Entertainment Lighting Design
- ▶ CDID 553 Lighting Design: Lighting Design Practicum
- ▶ CDID 554 Lighting Design: Lighting Research Practicum

# MACROECONOMIC THEORY AND POLICY

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

Macroeconomic theory examines the effect of changes in the price level and in the level of aggregate output, while making the simplifying assumption that relative prices remain the same. This certificate is designed to show students how to use the tools of macroeconomics to analyze issues of economic policy involving money and banking in the domestic and international economy, labour markets, economic development, as well as the economies of East Asia.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

**Academic Coordinator:**  
Michael Jolly

## Admission Requirements

OSSD with six Grade 12 U (including Grade 12 U credits in English and Mathematics) or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 301 Economics: Intermediate Macroeconomics I

## Electives (select three)

- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 503 Economics: Economic Development
- ▶ CECN 506 Economics: Money and Banking
- ▶ CECN 600 Economics: Intermediate Macroeconomics II
- ▶ CECN 605 Economics: Labour Economics
- ▶ CECN 606 Economics: International Monetary Economics
- ▶ CECN 715 Economics: Advanced Microeconomics
- ▶ CECN 802 Economics: The Economies of East Asia
- ▶ CECN 815 Economics: Advanced Macroeconomics

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 506 Economics: Money and Banking
- ▶ CECN 606 Economics: International Monetary Economics
- ▶ CECN 802 Economics: The Economies of East Asia

## MAGAZINE AND WEB PUBLISHING

The Certificate in Magazine and Web Publishing is designed to provide essential knowledge and skills in all aspects of producing a magazine, from management through writing to editing to ad sales, circulation, and production. Students in the certificate come from various backgrounds:

- ▶ those planning a career in the web publishing or magazine industry, either staff or freelance
  - ▶ those working at a magazine or website, large or small, and looking to sharpen the skills they use in their job and/or broaden their knowledge of the other disciplines within their company
  - ▶ those thinking of starting up their own magazine or website
- Instructors with extensive experience, all of whom currently work in the field, offer professional-level teaching that combines a solid theoretical base with practical training.

Magazines Canada recognizes the high level of quality and professionalism that Ryerson brings to its Magazine and Web Publishing certificate program.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/magazine](http://www.ryerson.ca/ce/magazine).

## Admission Requirements

Undergraduate degree, or mature student status with acceptable professional experience in publishing or a related field is required. You may take individual courses without pursuing the certificate.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

All applicants are encouraged to attend a Program Open House, or may contact The Chang School at 416.979.5035 or [ce@ryerson.ca](mailto:ce@ryerson.ca).

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of seven 39-hour courses, or the equivalent, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

Courses need not be taken in any particular order.

- ▶ CDJN 112 Magazine and Web Publishing:  
Magazine and Website Publishing
- ▶ CDJN 113 Magazine and Web Publishing:  
Magazine and Website Editing

## Electives (five 39-hour courses or equivalent combination of electives totalling 195 hours)

### 39-Hour Courses

- ▶ CDJN 116 Magazine and Web Publishing:  
Introduction to Magazine Design
- ▶ CDJN 117 Magazine and Web Publishing:  
Writing for Magazines and the Web
- ▶ CDJN 118 Magazine and Web Publishing:  
Advanced Feature Writing
- ▶ CDJN 119 Magazine and Web Publishing:  
Magazine Copy Editing
- ▶ CDJN 205 Magazine and Web Publishing:  
Magazine Production

### 19.5-Hour Courses

Students may substitute two of the following 19.5-hour courses for any of the above 39-hour electives.

- ▶ CDJN 120 Magazine and Web Publishing:  
Magazine Fact-Checking and Research
- ▶ CDJN 121 Magazine and Web Publishing:  
Magazine Packaging
- ▶ CDJN 122 Magazine and Web Publishing:  
Advanced Magazine Editing
- ▶ CDJN 201 Magazine and Web Publishing:  
Magazine Advertising Sales and Marketing
- ▶ CDJN 202 Magazine and Web Publishing:  
Magazine Marketing and Circulation
- ▶ CDJN 204 Magazine and Web Publishing:  
Layout Software for Magazine Editors
- ▶ CDJN 206 Magazine and Web Publishing:  
Creating Website Editorial
- ▶ CDJN 207 Magazine and Web Publishing:  
The Online Publishing Toolkit
- ▶ CDJN 208 Magazine and Web Publishing:  
Ad Sales on the Web

## Note to registered certificate program students

### Electives (19.5-Hour Courses)

CDJN 207 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CDJN 121 Magazine and Web Publishing:  
Magazine Packaging
- ▶ CDJN 206 Magazine and Web Publishing:  
Creating Website Editorial

## Special Two-Day Workshop

So You Want to Start a Magazine? (CDJN 101)

How to have a smart launch and long-term success

Launching a magazine is an exciting and rewarding thing to do, but the process – from developing a concept to day-to-day business management – is more complicated than it seems.

Join us for an intensive two-day course that emphasizes all the practical aspects of launching a magazine in today's highly competitive market. If you are thinking of starting up a magazine, you will gain from the experience and insights of an expert and save time and money.

Visit [www.ryerson.ca/ce/startamagazine](http://www.ryerson.ca/ce/startamagazine) for details.

# MEDIA WRITING FUNDAMENTALS

Students will receive a thorough overview of all the various forms of writing for the electronic media, including dramatic writing, commercial writing, and writing for factual programs. Practical assignments will be supported by theoretical material that provides fundamental instruction in dramatic theory and marketing theory, and will provide both a context and a critical lens through which students may view their written work.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/rta](http://www.ryerson.ca/ce/rta).

## Admission Requirements

OSSD with six Grade 12 U or M courses, including OAC English or Grade 12 U English (ENG4U) with a minimum grade of 70 percent or higher, or mature student status is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Application

Students seeking admission to this program are required to complete an application for pre-approval. To obtain an application, click on Forms and Documents, or call 416.979.5035. Completed application forms along with all of the appropriate documentation should be taken to the Program Open House. Incomplete applications will not be considered.

Students not wishing to complete the Certificate in Media Writing Fundamentals may take individual courses from the certificate program for general interest and the application process is not necessary.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of seven courses (two required courses plus five electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate. The order in which the required courses are taken should be considered carefully so as to meet the prerequisites for the desired elective courses.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

The order in which the required courses are taken should be considered carefully so as to meet the prerequisites for the desired elective courses.

- ▶ CBDC 102 Broadcasting and Media Production: Media Writing I - Audio and Digital Media
- ▶ CBDC 202 Broadcasting and Media Production: Media Writing II - TV Studio and EFP

## Electives (select five)

- ▶ CBDC 941 Broadcasting and Media Production: Dramatic Writing
- ▶ CBDC 942 Broadcasting and Media Production: Commercial Writing
- ▶ CBDC 943 Broadcasting and Media Production: Comedic Writing
- ▶ CBDC 944 Broadcasting and Media Production: Writing for Animation
- ▶ CBDC 945 Broadcasting and Media Production: Writing for Factual and Reality Programs
- ▶ CBDC 946 Broadcasting and Media Production: Interactive Writing
- ▶ CDMP 125 Film Studies: Fiction Screenwriting
- ▶ CDMP 126 Film Studies: Non-Fiction Screenwriting
- ▶ CDMP 700 Film Studies: Advanced Screenwriting

## Note to registered certificate program students

### *Electives*

CDMP 700 added.

# MENTAL HEALTH AND ADDICTIONS

This certificate program provides a comprehensive curriculum in mental health and addictions to individuals requiring knowledge in the area in dealing with employees, clients, family members, and friends through their places of employment, volunteer activities, or personal situations. Building on a foundation of psychological concepts, the curriculum comprising degree-level courses acquaints students with the various perspectives describing and understanding mental health, mental health disorders and addictions, and interventions, including assessment, treatment, and self-help strategies within individual, group, family, and community contexts.

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or three years of experience in business, community service, or industry are required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of 10 course credits, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CPSY 102 Psychology: Introduction to Psychology I
- ▶ CPSY 202 Psychology: Introduction to Psychology II
- ▶ CPSY 215 Psychology: Psychology of Addictions
- ▶ CPSY 325 Psychology: Psychological Disorders

## Electives

**(total of six courses from the following two groups)**

### Electives – Group A (select at least two)

Students may select only one of CPSY 214 or CPSY 607.

- ▶ CPSY 214 Psychology: Psychopharmacology
- ▶ CPSY 324 Psychology: Biological Psychology
- ▶ CPSY 335 Psychology: Clinical Psychology
- ▶ CPSY 607 Psychology: Drugs and Human Behaviour

### Electives – Group B (select two to four)

- ▶ COPS 250 Psychology: Independent Study
- ▶ CPSY 300 Psychology: Psychology and Law
- ▶ CPSY 302 Psychology: Child Development
- ▶ CPSY 412 Psychology: Human Brain Circuitry
- ▶ CPSY 602 Psychology: Developmental Psychopathology
- ▶ CPSY 605 Psychology: Psychology of Health and Health Care
- ▶ CPSY 620 Psychology: Psychology of Immigration
- ▶ CPSY 621 Psychology: Psychology of Human Sexuality
- ▶ CPSY 802 Psychology: Death, Dying, and Bereavement
- ▶ CPSY 805 Psychology: Adjustment, Stress and Coping
- ▶ CPSY 806 Psychology: Behaviour Modification
- ▶ CPSY 808 Psychology: Community Psychology

## Note to registered certificate program students

This certificate program has been revised effective July 1, 2012. Students who formally registered in the certificate prior to July 1, 2012, must complete the program requirements in effect at the time they registered. For further information, please contact The Chang School at 416.979.5035 or [ce@ryerson.ca](mailto:ce@ryerson.ca).

### Electives – Group B

CPSY 300, CPSY 412, and CPSY 620 added.

## Distance Education

The following course is available in a distance education format this academic year.

- ▶ CPSY 325 Psychology: Psychological Disorders
- ▶ CPSY 607 Psychology: Drugs and Human Behaviour
- ▶ CPSY 300 Psychology: Psychology and Law

# MICROECONOMIC THEORY AND POLICY

Microeconomic theory examines the effect of changes in relative prices, while making the simplifying assumption that the overall price level and the level of aggregate output remain constant. This certificate is designed to show students how to use the tools of microeconomics to analyze issues of economic policy involving labour markets, the transportation sector, natural resources, the interaction between environment and economy, international trade, industrial organization, and the public sector.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

**Academic Coordinator:**  
Michael Jolly

## Admission Requirements

OSSD with six Grade 12 U (including Grade 12 U credits in English and Mathematics) or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 504 Economics: Intermediate Microeconomics I

## Electives (select three)

- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 321 Economics: Introduction to Law and Economics
- ▶ CECN 501 Economics: Industrial Organization
- ▶ CECN 502 Economics: Economics of Natural Resources
- ▶ CECN 510 Economics: Environmental Economics
- ▶ CECN 605 Economics: Labour Economics
- ▶ CECN 640 Economics: The Economics of Immigration
- ▶ CECN 700 Economics: Intermediate Microeconomics II
- ▶ CECN 703 Economics: Public Finance I
- ▶ CECN 707 Economics: Economics of International Trade
- ▶ CECN 710 Economics: Transportation Economics
- ▶ CECN 715 Economics: Advanced Microeconomics
- ▶ CECN 803 Economics: Public Finance II

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 321 Economics: Introduction to Law and Economics
- ▶ CECN 707 Economics: Economics of International Trade

# MINING MANAGEMENT

This certificate program will provide students with additional competencies in natural resource development, financing, and value creation in the mining industry. This 234-hour, post-baccalaureate certificate is designed to provide employable skills and act as a direct channel for students to access a large and growing sector of the Canadian economy. It addresses sustainability in the context of corporate social responsibility, exploration and development operations, risk factors, the reporting of these findings, and managerial strategies in the mining sector.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/mining](http://www.ryerson.ca/ce/mining).

## Admission Requirements

Applicants must complete an application for pre-approval form, be approved by the academic coordinator, and meet the following criteria:

An undergraduate degree with a GPA of 1.67

AND

Five years of professional experience in a relevant field

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Application

Students seeking admission to this program are required to complete an application for pre-approval and submit it to the academic coordinator. To obtain an application, visit Forms and Documents. The completed application, together with transcripts, may be presented to the academic coordinator during the Open House, or mailed to the address on the form.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CZMM 403; CZMM 420;

Electives (three selections); CZMM 500

## Required Courses

- ▶ CZMM 403 Mining Management: CSR, Sustainability, and Mining
- ▶ CZMM 420 Mining Management: Resource Valuation, Financing, and Investor Relations
- ▶ CZMM 500 Mining Management: Corporate Strategy in the Mining Sector

## Elective Courses (select three)

- ▶ CZMM 411 Mining Management: Exploration and Development Operations
- ▶ CZMM 421 Mining Management: Risk Management and the Mining Sector
- ▶ CZMM 422 Mining Management: Mining Management Accounting
- ▶ CZMM 430 Mining Management: Mining in the Global Environment

# MUSIC: GLOBAL AND CULTURAL CONTEXTS

The Certificate in Music: Global and Cultural Contexts explores musical creation in all of its rich diversity. Students will learn about the complexities of music from around the globe, from ancient times until the modern age. Through concrete study of the ways in which music reflects and responds to its shifting cultural, social, political, and historical environments, students will hone skills in critical thinking, analysis, and writing. The program will be well-suited to students with broad interest in the study and practice of music for personal enrichment, academic progress, or professional development.

## Academic Coordinator:

Paul Swoger-Ruston: pruston@ryerson.ca (copying Program Director, Nenita Elphick, at elphick@ryerson.ca).

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English) with a minimum grade of 70 percent, or equivalent, or mature student status with relevant work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (three required courses and three electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence: CMUS 101 and/or CMUS 106; Electives – Group A (one or two selections); and Electives – Group B (three selections).

## Required Courses

Students may select one or both of the following courses. If only one course is taken, then two selections must be made from Electives – Group A.

- ▶ CMUS 101 Music: Intro to World and Early European Music
- ▶ CMUS 106 Music: The Architecture of Music

## Electives – Group A (select one or two)

- ▶ CMUS 105 Music: Voices Without Borders: Global Chorus
- ▶ CMUS 211 Music: Music Cultures of the City
- ▶ CMUS 401 Music: Music, Religion and Spirituality
- ▶ CMUS 501 Music: Traditional Musics of the World

## Electives – Group B (select three)

- ▶ CMUS 110 Music: Music and Film
- ▶ CMUS 201 Music: Introduction to Classical Music
- ▶ CMUS 303 Music: Global Guitar
- ▶ CMUS 403 Music: Latin American Music
- ▶ CMUS 406 Music: Chinese Instrumental Music
- ▶ CMUS 505 Music: Popular Music and Culture
- ▶ CMUS 506 Music: Chinese Music Studies

# ADVANCED NEUROSCIENCE-STROKE CARE

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This Interprofessional Certificate in Advanced Neuroscience-Stroke Care offers health care providers the opportunity to develop an advanced understanding of evidence-based practices and research across the continuum of neuroscience and stroke client-centred care. Developed by subject matter experts in both the clinical and academic fields, the curriculum ensures industry relevance and recognition. To maximize access for health care professionals, all courses will be delivered through a combination of self-study, online course work, and live web conferencing.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/neuroscience-stroke](http://www.ryerson.ca/ce/neuroscience-stroke).

## Program Manager:

Paula Mastrilli, [ceneuroscience@ryerson.ca](mailto:ceneuroscience@ryerson.ca) or 416.979.5000, ext. 4775.

## Admission Requirements

A baccalaureate degree or equivalent in a health-related field of study and a minimum of one years' related professional experience in neuroscience-stroke care.

If an applicant has experience in neuroscience-stroke care and/or is in the process of completing a baccalaureate degree or equivalent, the program manager will assess the applicant's work experience and academic credentials to determine the applicant's admissibility to the program.

Students who wish to enroll in specific courses on a stand-alone basis may do so with permission of the academic coordinator.

Students seeking admission to this program are required to complete an application for pre-approval. Complete an application via the online eligibility form.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Interview

Admission interviews will be conducted either in person, by phone, or through an online Information Session. For further information, contact The G. Raymond Chang School of Continuing Education office by email or 416.979.5000, ext. 4775.

## Certificate Requirements

The successful completion of six single-term courses or equivalent, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CVNS 600 Neuroscience: Critical Appraisal of Evidence
- ▶ CVNS 620 Neuroscience: Health Promotion Paradigms
- ▶ CVNS 630 Neuroscience: Brain Structures and Cognition
- ▶ CVNS 640 Neuroscience: Neuro-Stroke Assessment
- ▶ CVNS 650 Neuroscience: Client Stroke Rehabilitation Recovery
- ▶ CVNS 660 Neuroscience: Leadership in Stroke Care

# NEWS STUDIES

This certificate program is designed to provide students with a thorough understanding of how journalists gather, report, analyze, and explain what is considered “news.” It is of interest to those whose work intersects with journalists, media relations personnel, individuals interested in news and the media, and students interested in pursuing a career in communications.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/newsstudies](http://www.ryerson.ca/ce/newsstudies).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Sequence

Students are required to take the courses in the following sequence:

CNNS 101; Electives (five selections)

## Required Course

▶ CNNS 101 News Studies: Introduction to News Studies

## Electives (select five)

- ▶ CJRN 123 Journalism: Ethics and Law in the Practice of Journalism
- ▶ CJRN 401 Journalism: History of Journalism
- ▶ CJRN 404 Journalism: Journalism's Best
- ▶ CJRN 412 Journalism: Documentary Survey
- ▶ CNNS 102 News Studies: Understanding Multimedia Journalism
- ▶ CNNS 500 News Studies: Journalism and the Arts
- ▶ CNNS 502 News Studies: Journalism and the World of Business
- ▶ CNNS 505 News Studies: Health and Science Journalism
- ▶ CNNS 512 News Studies: Reporting Sports

## Note to registered certificate program students

As of the 2013-2014 academic year, the curriculum as noted above, shows the courses that must be completed by all students in order to satisfy the graduation requirements of the Certificate in News Studies. Students formally registered in the certificate prior to Fall 2013, should contact Muthana Zouri, Program Director, Communication and Design, at 416.979.5000, ext. or [mzouri@ryerson.ca](mailto:mzouri@ryerson.ca) to review their student record and the graduation requirements of the News Studies certificate.

# NONPROFIT AND VOLUNTARY SECTOR MANAGEMENT

Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.

Ryerson has created this distinctive, interdisciplinary certificate program in response to a growing demand for education that focuses on the specialized needs of the sector.

This program is the first undergraduate university certificate program in nonprofit sector management in Canada. It is affiliated with Ryerson's Centre for Voluntary Sector Studies, which provides a dynamic link to the sector through research, consultation, and educational programming. This unique program offers the following:

- ▶ an interdisciplinary curriculum pooling knowledge from three academic disciplines: business management, public administration, and social work
- ▶ a practical blend of theory and application taught by academics and practitioners
- ▶ a wide range of current and relevant courses covering key areas such as marketing, financial management, fundraising, advocacy, strategic planning, program evaluation, organizational management, and organizational change

Courses are available in a variety of formats including distance via the Internet.

## Who Will Benefit

- ▶ managers, staff, practitioners and volunteers of nonprofit organizations
- ▶ those interested in pursuing careers in the nonprofit sector
- ▶ those interested in developing partnerships with nonprofit organizations

The certificate is affiliated with Ryerson University's Centre for Voluntary Sector Studies.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/nonprofit](http://www.ryerson.ca/ce/nonprofit).

For related career information, please visit Industry Overview.

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Course Delivery Schedule

|                  | 2013/14 |     |     | 2014/15 |     |     | 2015/16 |     |     | 2016/17 |     |     | 2017/18 |     |     |
|------------------|---------|-----|-----|---------|-----|-----|---------|-----|-----|---------|-----|-----|---------|-----|-----|
|                  | F       | W   | S/S |
| <b>REQUIRED</b>  |         |     |     |         |     |     |         |     |     |         |     |     |         |     |     |
| CINP 900         |         | C/D |     |
| CINP 901         | C/D     |     |     |
| CINP 902         | H       | D   |     | D       | H   |     | H       | D   |     | D       | H   |     | D       | H   |     |
| CINP 920         |         | D   |     |         | H   |     | H       |     | D   |         | H   |     |         | D   |     |
| <b>ELECTIVES</b> |         |     |     |         |     |     |         |     |     |         |     |     |         |     |     |
| CINP 910         | H       |     | D   | H       |     | D   |         | H   |     | D       |     |     | D       |     |     |
| CINP 911         | D       | C   |     |         | C   | D   | C       |     |     |         | C   |     |         | D   |     |
| CINP 912         | D       | C   |     | C       | D   |     | D       | C   |     | C       | D   |     | C       | D   |     |
| CINP 913         |         | H   | D   | D       | H   |     | H       | D   |     |         | D   | H   |         | D   | H   |
| CINP 914         | C       | D   |     | C       | D   |     | D       | C   |     | C       |     | D   | C       |     | D   |
| CINP 915         |         | H   | D   | H       |     | D   |         | H   | D   | H       | D   |     | H       | D   |     |
| CINP 916         |         |     | C   |         | D   |     |         | C   |     | D       |     |     |         | D   |     |

**C** Classroom

**D** Distance

**H** Hybrid (Classroom/Internet combined)

*This schedule is subject to revision but can be used as a planning guide.*

## Certificate Requirements

The successful completion of eight single-term courses (four required courses and four electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CINP 900 Nonprofit: Understanding the Nonprofit Sector
- ▶ CINP 901 Nonprofit: Developing Effective Organizations
- ▶ CINP 902 Nonprofit: Program Evaluation
- ▶ CINP 920 Nonprofit: Critical Issues in the Third Sector

## Electives (select four)

- ▶ CINP 910 Nonprofit: Strategic Planning
- ▶ CINP 911 Nonprofit: Advocacy and Governmental Relations
- ▶ CINP 912 Nonprofit: Marketing for Nonprofit Organizations
- ▶ CINP 913 Nonprofit: Leading Through Change
- ▶ CINP 914 Nonprofit: Issues of Diversity
- ▶ CINP 915 Nonprofit: Financial Management
- ▶ CINP 916 Nonprofit: NGOs and World Governance

## Distance Education

All courses in this certificate are available in a distance education format. Distance education offerings are shown in the following chart.

# NURSING LEADERSHIP AND MANAGEMENT, ADVANCED

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program is designed to meet the needs of nurses currently employed or aspiring to be employed in leadership and management roles within a health services setting. The program builds on the foundational leadership and management content encompassed by a baccalaureate degree; provides access to courses that will focus on students' main area of leadership and/or management interest; and provides students with the opportunity to apply newly acquired knowledge to a practical leadership and/or management issue.

## Admission Requirements and Application

Students seeking admission to this certificate program must be Registered Nurses (RN) who are registered with the professional governance body of their jurisdiction. They must hold a Canadian undergraduate degree in Nursing (BScN) or equivalent degree. Applicants must also complete an application for pre-approval and be approved by the academic coordinator before registering in their first course.

Students seeking admission to this certificate program are required to complete an application for pre-approval. Complete an application via the online eligibility form.

## Admission Interview/Placement Assessment

An individual consultation with a program advisor is required in order to assist students in selecting both a focus for the certificate and appropriate electives. Contact the Nursing program advisors at [cenurse@ryerson.ca](mailto:cenurse@ryerson.ca) or 416.979.5000, ext. 4775.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CVNU 360

Electives – Group A (select one)

Electives – Group B (select one or two)

Electives – Group C (select one or two)

CVNU 370

It is highly recommended that students complete CVNU 360 as their first course. The capstone course, CVNU 370, may only be taken as the last course in the certificate. Students are encouraged to contact the Nursing program advisors in order to plan their capstone registration.

## Required Courses

- ▶ CVNU 360 Nursing: Advanced Leadership and Management
- ▶ CVNU 370 Nursing: Change and Innovation

## Electives (select a total of four courses)

*Electives – Group A: Program Planning and Evaluation (select one)*

- ▶ CHSM 408 Health Services Management: Program Planning and Evaluation
- ▶ CINP 902 Nonprofit: Program Evaluation
- ▶ CINT 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- ▶ CPPA 402 Politics and Public Administration: Program Planning and Evaluation

*Electives – Group B: Leadership (select one or two)*

- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CINT 907 Interdisciplinary Studies: Team Work for Community Services
- ▶ CINT 911 Interdisciplinary Studies: International Community Development
- ▶ CMHR 505 Human Resources: Organizational Behaviour II
- ▶ CMHR 638 Human Resources: Leaders as Coaches and Mentors
- ▶ CMHR 741 Human Resources: Managing Interpersonal Dynamics

*Electives – Group C: Management (select one or two)*

- ▶ CHIM 300 Health Information Management: Managing Health Information Services
- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CHSM 326 Health Services Management: Law for Health Managers
- ▶ CHSM 437 Health Services Management: Human Resources Management in Healthcare
- ▶ CINP 915 Nonprofit: Financial Management
- ▶ CINT 920 Interdisciplinary Studies: Community Collaborations
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 203 Project Management: Planning and Scheduling
- ▶ CKPM 209 Project Management: Project Risk and Quality Management
- ▶ CMHR 650 Human Resources: Management of Change
- ▶ CMHR 721 Human Resources: Negotiation and Conflict Resolution
- ▶ CMHR 841 Human Resources: Organization Theory and Design
- ▶ CSWP 934 Social Work: Community Engagement Foundations
- ▶ CSWP 936 Social Work: Community Engagement Practices
- ▶ CVNU 321 Nursing: Financial Management

## Note to registered certificate program students

*Electives – Group C: Management*

CHSM 307 replaces CVLT 102.  
 CSWP 934 replaces CVSW 200.  
 CSWP 936 replaces CVSW 210.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CVNU 360 Nursing: Advanced Leadership and Management
- ▶ CHSM 408 Health Services Management: Program Planning and Evaluation
- ▶ CINP 902 Nonprofit: Program Evaluation
- ▶ CINT 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CINT 907 Interdisciplinary Studies: Team Work for Community Services
- ▶ CINT 911 Interdisciplinary Studies: International Community Development
- ▶ CMHR 505 Human Resources: Organizational Behaviour II
- ▶ CHIM 300 Health Information Management: Managing Health Information Services
- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CHSM 326 Health Services Management: Law for Health Managers
- ▶ CINP 915 Nonprofit: Financial Management
- ▶ CINT 920 Interdisciplinary Studies: Community Collaborations
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 203 Project Management: Planning and Scheduling
- ▶ CKPM 209 Project Management: Project Risk and Quality Management
- ▶ CMHR 650 Human Resources: Management of Change
- ▶ CSWP 934 Social Work: Community Engagement Foundations
- ▶ CSWP 936 Social Work: Community Engagement Practices

## OCCUPATIONAL HEALTH AND SAFETY

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program in Occupational Health and Safety was developed in cooperation with the Ryerson School of Occupational and Public Health ([www.ryerson.ca/sophe](http://www.ryerson.ca/sophe)). This unique offering is designed especially for those currently involved in the field who wish to expand their knowledge and improve their skills. The program covers a wide range of perspectives, principles, and issues in the occupational health and safety field, and is applicable to all types of industry.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/ohs](http://www.ryerson.ca/ce/ohs).

For related career information, please visit Industry Overview.

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status and extensive professional experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate

requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ COHS 208 Occupational Health: Occupational Health and Safety Law
- ▶ COHS 508 Occupational Health: Occupational Health
- ▶ COHS 608 Occupational Health: Hazard Recognition and Control
- ▶ COHS 718 Occupational Health: Systems Management I
- ▶ CVOH 217 Occupational Health: Measurement and Analysis
- ▶ CVOH 221 Occupational Health: Topics in Occupational Health and Safety

### Electives (select one)

- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ COHS 477 Occupational Health: Integrated Disability Management
- ▶ CPPA 101 Politics and Public Administration: Cdn Public Administration I: Institutions

*Note: Many of the courses are offered in an intensive format. See course descriptions for additional information.*

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ COHS 208 Occupational Health: Occupational Health and Safety Law
- ▶ COHS 508 Occupational Health: Occupational Health
- ▶ COHS 608 Occupational Health: Hazard Recognition and Control
- ▶ COHS 718 Occupational Health: Systems Management I
- ▶ CVOH 217 Occupational Health: Measurement and Analysis
- ▶ CVOH 221 Occupational Health: Topics in Occupational Health and Safety
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ COHS 477 Occupational Health: Integrated Disability Management
- ▶ CPPA 101 Politics and Public Administration: Cdn Public Administration I: Institutions

## ORGANIZATIONAL LEADERSHIP

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

Organizational leadership and management skills are critical to success in business, in the voluntary sector, community services, and any profession where you must achieve results through others. The Certificate in Organizational Leadership will help you develop the ability to influence, motivate, and enable others to contribute towards the effectiveness and success of your organization. Upon completion of this certificate, you will be able to apply leadership knowledge and skills to any job, in any sector.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/orgleaders](http://www.ryerson.ca/ce/orgleaders).

### Admission Requirements

OSSD with six Grade 12 U, including Grade 12 U or M credits, or equivalent, or mature student status with relevant work experience.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 640 Human Resources: Leadership

## Electives (select four)

- ▶ CMHR 505 Human Resources: Organizational Behaviour II
- ▶ CMHR 638 Human Resources: Leaders as Coaches and Mentors
- ▶ CMHR 650 Human Resources: Management of Change
- ▶ CMHR 700 Human Resources: Cross-Cultural Dimensions of Organizational Behaviour
- ▶ CMHR 721 Human Resources: Negotiation and Conflict Resolution
- ▶ CMHR 741 Human Resources: Managing Interpersonal Dynamics
- ▶ CMHR 841 Human Resources: Organization Theory and Design
- ▶ CMHR 850 Human Resources: Organization Development

## Note to registered certificate program students

### *Electives*

CMHR 638 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 640 Human Resources: Leadership
- ▶ CMHR 505 Human Resources: Organizational Behaviour II
- ▶ CMHR 650 Human Resources: Management of Change

## PHOTOGRAPHY STUDIES

Photography has become an important medium of communication in industry, sales and advertising, government, education, the press, and the arts; consequently, there has been a rise in the demand for properly trained and qualified personnel to work in these fields. This certificate program addresses these needs by offering a basic professional program of study in photography for those who wish to upgrade their present level of expertise, retrain or make a career change, establish their own business, improve opportunities for advancement or job placement in photography-related fields, or prepare for entrance into the degree program at an advanced level.

The courses in the certificate program are usually equivalent to one-half or one-quarter of similar courses in the undergraduate degree program. In some cases full credit for an undergraduate degree course may be granted by completing specific certificate courses (see course descriptions). Transfer Credit students will not be considered unless they have already taken the Image History, Image Theory, and Visual Studies courses.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/photography](http://www.ryerson.ca/ce/photography).

## Individual Courses

Students not wishing to complete the Certificate in Photography Studies may take individual courses from the certificate program for general interest.

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English), with a minimum average of 60 percent, or equivalent, or mature student status with relevant professional experience is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Advanced Standing

Mature students may be eligible on the basis of work experience in a relevant field. Applicants possessing higher qualifications will be considered for advanced standing on individual merits.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight single-term courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Equipment/Facilities Use

Please note that equipment and facilities use outside of class time will not be provided. Extra time may be purchased.

## Required Courses

- ▶ CDFP 328 Photography: Photography Production I
- ▶ CDFP 329 Photography: Photography Production II
- ▶ CDFP 391 Photography: History of Photography I

## Electives (select five)

- ▶ CDFP 320 Photography: Analog Photography
- ▶ CDFP 322 Photography: Photography for Ad Agencies
- ▶ CDFP 332 Photography: Digital Printing
- ▶ CDFP 333 Photography: Photography and Digital Imaging
- ▶ CDFP 358 Photography: Photography and the Web
- ▶ CDFP 367 Photography: Photoshop for Photographers
- ▶ CDFP 378 Photography: 20th Century Photography
- ▶ CDFP 381 Photography: Advanced Fashion Photography
- ▶ CDFP 382 Photography: Advanced Portrait Photography
- ▶ CDFP 389 Photography: Commercial Photography I
- ▶ CDFP 390 Photography: Commercial Photography II
- ▶ CDFP 392 Photography: Documentary Photography
- ▶ CDFP 398 Photography: History of Photography II
- ▶ CDFP 403 Photography: Creative Wedding Photography
- ▶ CDFP 404 Photography: Magazine Photography
- ▶ CDFP 405 Photography: Architectural Photography
- ▶ CFPN 532 Photography: Advanced Studio Lighting
- ▶ CFPN 536 Photography: Media Business Studies
- ▶ CFPN 539 Photography: The Human Figure
- ▶ CFPN 543 Photography: Historical Processes Workshops

## Note to registered certificate program students

### Required Courses

The Traditional Stream and Digital Stream have been merged.

CDFP 328 replaces CDFP 320 (Traditional Stream) and CDFP 383 (Digital Stream).

CDFP 329 replaces CDFP 321 (Traditional Stream) and CDFP 384 (Digital Stream).

### Electives

CDFP 385 and CDFP 386 deleted.

CDFP 333, CDFP 358, CDFP 367, and CDFP 368 added.

CDFP 320 moved from Required Courses to Electives.

# PHYSICAL ACTIVITY: ASSESSMENT AND PROMOTION

This program provides dietetic and nutrition practitioners with a unique interdisciplinary perspective on human movement. It offers knowledge and tools necessary to approach physical activity using the population health framework. Topics include exercise physiology, physical assessment, social aspects of health and activity, health related fitness outcomes and body weight management, healthy development and aging, and methodology to create active environments and lifestyles.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/PracticeinMotion](http://www.ryerson.ca/ce/PracticeinMotion).

## Admission Requirements

This is an advanced certificate. Eligible applicants must have completed a Bachelor's degree in Nutrition and Food (or equivalent) or have clear standing in an upper year of such a degree program. Please contact the academic coordinator for approval (an interview might be required).

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

Please contact Diane Candiotta, Academic Coordinator, at [dcandiot@ryerson.ca](mailto:dcandiot@ryerson.ca), prior to enrolling in a course.

## Admission Application

Students seeking admission to this program are required to contact Diane Candiotta, Academic Coordinator, at [dcandiot@ryerson.ca](mailto:dcandiot@ryerson.ca)

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. It is recommended that the following courses are completed first: CFNA 100, CPLN 303, CFNA 201, and CFNA 300.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CFNA 100 Physical Activity: Health and Physical Activity
- ▶ CFNA 201 Physical Activity: Lifestyle and Fitness Assessment
- ▶ CFNA 202 Physical Activity: Physical Activity and the Environment
- ▶ CFNA 300 Physical Activity: Nutrition and Physical Activity
- ▶ CFNA 301 Physical Activity: Exercise Intervention
- ▶ CPLN 303 Physical Activity: Exercise Science and Physiology

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CFNA 300 Physical Activity: Nutrition and Physical Activity

## PROFICIENCY IN FRENCH

This certificate program is designed to provide proficiency in oral and written French. The program offers opportunities to increase professional qualifications, prepare for travel, and become a more informed citizen in a bilingual nation. Ten levels of language courses, along with a range of advanced and specialized courses, are offered.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/french](http://www.ryerson.ca/ce/french).

### Admission Requirements

Completion of Introductory French I (CFRE 101) with a minimum grade of C+, or admission by placement assessment and interview is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six single-term credit courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Advanced Placement

If the student completes four courses at a level higher than CFRE 401, the successful completion of four single-term credit courses is required for the certificate. All four courses must be at the advanced level (CFRE 501 or higher).

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses (see Advanced Placement above)

- ▶ CFRE 201 French: Introductory French II
- ▶ CFRE 301 French: Intermediate French I
- ▶ CFRE 401 French: Intermediate French II
- ▶ CFRE 501 French: Speaking and Writing French I
- ▶ CFRE 601 French: Speaking and Writing French II

### Advanced Level Electives (select one)

- ▶ CFRE 402 French: French Conversation and Pronunciation
- ▶ CFRE 502 French: Advanced Business French I
- ▶ CFRE 505 French: Language and Culture I
- ▶ CFRE 507 French: English-French Translation I
- ▶ CFRE 508 French: Intro to 20th C French Literature I
- ▶ CFRE 509 French: Franco-Canadian Literature I
- ▶ CFRE 510 French: Effective Writing I
- ▶ CFRE 515 French: Introduction to Business French
- ▶ CFRE 602 French: Advanced Business French II
- ▶ CFRE 605 French: Language and Culture II
- ▶ CFRE 607 French: English-French Translation II
- ▶ CFRE 608 French: Intro to 20th C French Literature II
- ▶ CFRE 609 French: Franco-Canadian Literature II
- ▶ CFRE 610 French: Effective Writing II
- ▶ CFRE 701 French: French in the Media I
- ▶ CFRE 704 French: Intro to Franco-Canadian Culture I
- ▶ CFRE 707 French: Introduction to French-English Translation
- ▶ CFRE 801 French: French in the Media II
- ▶ CFRE 803 French: French Theatre: 20th C and Contemporary
- ▶ CFRE 804 French: Intro to Franco-Canadian Culture II
- ▶ CFRE 903 French: The Francophone Short Story

### Note to registered certificate program students

#### Electives

CFRE 903 added.

# PROFICIENCY IN SPANISH

This certificate is designed to provide proficiency in oral and written Spanish. It allows students the opportunity to upgrade their professional qualifications and to prepare for business or educational travel in the Spanish speaking world.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/spanish](http://www.ryerson.ca/ce/spanish).

## Admission Requirements

Completion of Introductory Spanish I (CSPN 101) with a minimum grade of C+, or admission by placement assessment and interview.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Advanced Placement

If the student completes four courses at a level higher than CSPN 401, the successful completion of four single-term courses is required for the certificate. All four courses must be at an advanced level (CSPN 501 or higher).

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses (see Advanced Placement above)

- ▶ CSPN 201 Spanish: Introductory Spanish II
- ▶ CSPN 301 Spanish: Intermediate Spanish I
- ▶ CSPN 401 Spanish: Intermediate Spanish II
- ▶ CSPN 501 Spanish: Advanced Spanish I
- ▶ CSPN 601 Spanish: Advanced Spanish II

## Electives (select one)

- ▶ CSPN 402 Spanish: Spanish Conversation and Pronunciation
- ▶ CSPN 515 Spanish: Introduction to Business Spanish
- ▶ CSPN 702 Spanish: Advanced Business Spanish
- ▶ CSPN 704 Spanish: Introduction to Latin American Culture I
- ▶ CSPN 708 Spanish: Contemporary Spanish Fiction
- ▶ CSPN 710 Spanish: Spanish of Spain and Latin America
- ▶ CSPN 804 Spanish: Introduction to Latin American Culture II
- ▶ CSPN 810 Spanish: Cultural Context of Writing

## Note to registered certificate program students

### Electives

CSPN 402 added.

# PROGRAM AND PORTFOLIO MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

Globalization has caused the market to become more competitive and organizations to become more complex. Both of these factors have created a demand for effective project, program, and portfolio management. This has been heightened by increased pressures presented by the recent economic downturn.

The goal of the Certificate in Program and Portfolio Management is to equip individuals who possess project management experience with the knowledge and skills required to successfully manage programs and portfolios. Inextricably partnered with this goal is that of providing reputable, university-level education which elevates the competency and relative desirability of certificate graduates in the field of project management.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/ppm](http://www.ryerson.ca/ce/ppm).

## Admission Requirements

This is an advanced certificate. Eligible applicants must have completed an undergraduate degree and at least six years relevant professional experience. In addition, all applicants must have one of the following: the Ryerson Certificate in Project Management (or an equivalent program) or current standing as a Project Management Professional (PMP) by the Project Management Institute (PMI) (or an equivalent accreditation). Applicants must complete an application for pre-approval form to be approved by the academic coordinator.

*Note: Admission requirements may be waived if a prospective student has either exceptional work experience or educational qualifications. To see if you qualify, please contact John Estrella, Academic Coordinator, at [jestrella@ryerson.ca](mailto:jestrella@ryerson.ca) or attend a Program Open House.*

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six credits (four required courses and six to eight electives (or 156 course hours)), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CKPP 110 Program and Portfolio Management: Overview of Program Management
- ▶ CKPP 120 Program and Portfolio Management: Overview of Portfolio Management
- ▶ CKPP 130 Program and Portfolio Management: Program and Portfolio Governance
- ▶ CKPP 140 Program and Portfolio Management: Organizational Strategy Through Projects

## Electives (select 156 hours)

### 19.5-Hour Courses

- ▶ CKPP 210 Program and Portfolio Management: Financial Measurements for Success
- ▶ CKPP 220 Program and Portfolio Management: Managing Programs and Projects Virtually
- ▶ CKPP 230 Program and Portfolio Management: Enterprise Risk Management
- ▶ CKPP 240 Program and Portfolio Management: Advanced Leadership Skills
- ▶ CKPP 250 Program and Portfolio Management: Leading Organizational Change
- ▶ CKPP 260 Program and Portfolio Management: Creating Balanced Portfolios
- ▶ CKPP 270 Program and Portfolio Management: Crisis Management and Program Recovery
- ▶ CKPP 280 Program and Portfolio Management: Global Program Management

### 39-Hour Courses

- ▶ CKPP 310 Program and Portfolio Management: Program and Portfolio Management Research
- ▶ CKPP 320 Program and Portfolio Management: Program and Portfolio Management Practicum

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKPP 110 Program and Portfolio Management: Overview of Program Management
- ▶ CKPP 120 Program and Portfolio Management: Overview of Portfolio Management
- ▶ CKPP 130 Program and Portfolio Management: Program and Portfolio Governance
- ▶ CKPP 140 Program and Portfolio Management: Organizational Strategy Through Projects
- ▶ CKPP 220 Program and Portfolio Management: Managing Programs and Projects Virtually
- ▶ CKPP 230 Program and Portfolio Management: Enterprise Risk Management
- ▶ CKPP 240 Program and Portfolio Management: Advanced Leadership Skills
- ▶ CKPP 270 Program and Portfolio Management: Crisis Management and Program Recovery
- ▶ CKPP 310 Program and Portfolio Management: Program and Portfolio Management Research
- ▶ CKPP 320 Program and Portfolio Management: Program and Portfolio Management Practicum

## PROJECT MANAGEMENT

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program in Project Management provides adult learners with an opportunity to acquire a level of knowledge and expertise that will permit them to contribute effectively to the management and the control of costs within any project environment. The program was developed in cooperation with the Project Management Institute, Southern Ontario Chapter.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/pm](http://www.ryerson.ca/ce/pm).

For related career information, please visit Industry Overview.

### Certificate Specializations

- ▶ Project Management (General)
- ▶ Architecture, Engineering, and Construction (AEC)
- ▶ Business and Information Management
- ▶ Community and Health Services Management

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent is required; persons lacking some of these requirements will be considered on an individual basis taking into account work-related experience and maturity.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight single-term courses, earned in one of the following ways:

- ▶ five required core courses, two stream-specific courses, and one elective
- ▶ five required core courses and three courses from the general stream

Students must achieve a cumulative grade point average of 1.67 or higher to graduate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence: CKPM 202 or CITM 750, CKPM 203, CKPM 211, CKPM 212, CKPM 209. Students in the Business and Information Management stream are advised to take CITM 305 and CITM 410 first.

## Suggested Textbooks and Readings

See Suggested Textbooks and Readings for a list of textbooks and readings that may be used for all six Project Management Intensive courses. Please be aware that this list is subject to change. A finalized list will be presented on the first day of class.

## Required Courses

### Core Program, Introductory Required Course

*Note: Students must choose either CKPM 202 or CITM 750. Students who plan to pursue the ITM degree should take CITM 750, as CKPM 202 is not a degree credit and cannot be used towards the ITM degree.*

- ▶ CITM 750 Information Technology Management: IT Project Management
- ▶ CKPM 202 Project Management: Fundamentals of Project Management

### Core Program, Required Courses

- ▶ CKPM 203 Project Management: Planning and Scheduling
- ▶ CKPM 209 Project Management: Project Risk and Quality Management
- ▶ CKPM 211 Project Management: Leadership in Project Management
- ▶ CKPM 212 Project Management: Project Cost and Procurement Management

### Select one option below:

#### Option 1: Project Management General Stream, Required Courses

*Note: Students may substitute one of the following courses with one 39-hour course from 'Electives – All Streams'.*

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CKPM 207 Project Management: Project Management Systems
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills

#### Option 2: Architecture, Engineering, and Construction Stream, Required Courses

- ▶ CKPM 213 Project Management: Management of Projects in the AEC
- ▶ CKPM 214 Project Management: Project Development and Control

#### Option 3: Business and Information Management Stream, Required Courses

*Note: Students in this stream should take CITM 305 and CITM 410 first, then take CITM 750 or CKPM 202, followed by the required courses in the core program.*

- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CITM 410 Information Technology Management: Business Process Design

#### Option 4: Community and Health Services Management Stream, Required Courses (select two)

- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.

*Note: Unlike the industry specific streams, the general stream does not have a free elective.*

## Electives – All Streams (select one 39-hour course or two 19.5-hour courses)

### 19.5-Hour Courses

- ▶ CKPP 110 Program and Portfolio Management: Overview of Program Management
- ▶ CKPP 120 Program and Portfolio Management: Overview of Portfolio Management

### 39-Hour Courses

- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 308 Health Services Management: Project Management - Long Term Care
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CITM 505 Information Technology Management: Managing Information Systems
- ▶ CKPM 207 Project Management: Project Management Systems
- ▶ CKPM 215 Project Management: Emerging Trends in Project Management
- ▶ CKPM 216 Project Management: Project Management Internship
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills

## Note to registered certificate program students

This certificate has been revised effective July 1, 2013. Students who formally registered in the certificate prior to July 1, 2013, must complete the program requirements in effect at the time they registered. For further information, please contact The Chang School at 416.979.5035 or ce@ryerson.ca.

### *Option 4: Community and Health Services Management Stream, Required Courses*

CHSM 307 replaces CVLT 102.

### *Electives – All Streams*

CHSM 308 replaces CVLT 401.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKPM 203 Project Management: Planning and Scheduling
- ▶ CKPM 209 Project Management: Project Risk and Quality Management
- ▶ CKPM 211 Project Management: Leadership in Project Management
- ▶ CKPM 212 Project Management: Project Cost and Procurement Management
- ▶ CCMN 114 Communication: Short Management Reports
- ▶ CKPM 207 Project Management: Project Management Systems
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CHSM 301 Health Services Management: The Healthcare Systems
- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 307 Health Services Management: Principles of Long Term Care Service Del.
- ▶ CITM 750 Information Technology Management: IT Project Management
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CITM 305 Information Technology Management: Systems Analysis and Design
- ▶ CKPP 110 Program and Portfolio Management: Overview of Program Management
- ▶ CKPP 120 Program and Portfolio Management: Overview of Portfolio Management
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CKPM 215 Project Management: Emerging Trends in Project Management
- ▶ CKPM 216 Project Management: Project Management Internship

## Condensed Scheduling Options

Condensed offerings represent one aspect of The Chang School's innovative programming. For learners there are two options to complete courses in a condensed format:

### *Option 1:*

Through an intensive, 14-week program, CKPM 999 Project Management Bootcamp participants can complete six courses in the Certificate in Project Management, and access specialized support in preparation for the Project Management Professional (PMP) exam.

### *Option 2:*

Through a series of intensive 2-week courses, students can take six courses in succession and finish all of them over a 12-week period, or take them individually to help earn the certificate faster.

# PROJECT MANAGEMENT BRIDGING CERTIFICATE FOR INTERNATIONALLY EDUCATED PROFESSIONALS

This certificate program will prepare internationally educated professionals with technical backgrounds such as engineers, information technology professionals, scientists, environmentalists, and other technical professionals to become employed in middle-level management (MLM) positions in the field of project management. Participants will gain knowledge and skills in estimating, scheduling, risk analysis, quality assurance, leadership, problem-solving, and Canadian workplace culture and communication.

Certificate graduates will increase their employability by acquiring a level of knowledge and expertise that will permit them to move into project management roles. This certificate will help prepare students to write the Project Management Professional (PMP)<sup>®</sup> examination offered by the Project Management Institute (PMI). Certificate graduates will be eligible to continue on to the Certificate in Project Management and/or the Certificate in Program and Portfolio Management, both offered by The Chang School.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/mlm](http://www.ryerson.ca/ce/mlm).

## Admission Requirements

An admission application is required for this program. A pre-approval process will be conducted by the program manager, including an orientation/information session, a one-on-one interview, and a language assessment. For more information, contact [mlm@ryerson.ca](mailto:mlm@ryerson.ca) or 416.979.5000, ext. 2705.

Eligible applicants must have completed an undergraduate degree, and have a minimum of two years of professional experience in a related field. They must also:

Be an accepted and registered participant in the Gateway for International Professionals' Middle-level Managers (MLM) with Technical Background Bridging Program

AND

Be a legal resident of Ontario at the time of application, and be eligible to work in Canada

AND

Have resided in Canada for no more than 10 years

AND

Be an internationally educated professional in a suitable technical discipline

AND

Demonstrate English language proficiency through any of Ryerson University's approved English language proficiency test scores

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Sequence

Students are required to take the courses in the following sequence:

CKPM 202  
CKPM 211  
CKPM 212  
CCMN 432  
CKPM 216  
CDCE 400

## Required Courses

- ▶ CCMN 432 Communication: Communication in the Engineering Professions
- ▶ CDCE 400 Workplace Communication in Canada (WCC): Exploring Leadership Skills
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 211 Project Management: Leadership in Project Management
- ▶ CKPM 212 Project Management: Project Cost and Procurement Management
- ▶ CKPM 216 Project Management: Project Management Internship

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKPM 211 Project Management: Leadership in Project Management
- ▶ CKPM 212 Project Management: Project Cost and Procurement Management
- ▶ CKPM 216 Project Management: Project Management Internship

## PSYCHOLOGY

This certificate program will appeal to students who wish to enhance their career opportunities and/or personal interests. The program provides the opportunity to study and understand human behaviour in a wide variety of settings. It is designed to familiarize students with the methods, concepts, theories, and applications of psychology.

Students may choose electives from a variety of areas in psychology or they may choose to specialize. Suggested specializations include the following:

- ▶ psychological principles of growth and development
- ▶ abnormal aspects of human behaviour
- ▶ explanations of personality and its development
- ▶ the study of social behaviour
- ▶ applications of psychology in organizations

### Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or three years of experience in business, community service, or industry are required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Transfer Credits

Up to four single-term course credits may be granted on the basis of the successful completion of other Ryerson psychology courses or the completion of psychology courses at other post-secondary institutions meeting Ryerson Faculty of Arts requirements. See Transfer Credits.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight course credits, with a cumulative grade point average of 1.67 or higher, is required for the certificate. Three courses are compulsory: a foundation course, a research methodology course, and an independent study course. A foundation course must be taken as the first course. The independent study course may be taken only after the foundation course, the research methodology course, and three other courses chosen from the electives have been completed.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/ Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

Students may select only one of CPSY 102 or CPSY 105.

- ▶ COPS 250 Psychology: Independent Study
- ▶ COPS 601 Psychology: Research Methodology
- ▶ CPSY 102 Psychology: Introduction to Psychology I
- ▶ CPSY 105 Psychology: Perspectives in Psychology

Students planning to enroll in the Independent Study course should contact the Academic Coordinator, Department of Psychology, at 416.979.5000, ext. 6195, in the first week of September or January, to be assigned a faculty advisor from the Department of Psychology.

## Electives (select five)

- ▶ CPSY 202 Psychology: Introduction to Psychology II
- ▶ CPSY 214 Psychology: Psychopharmacology
- ▶ CPSY 215 Psychology: Psychology of Addictions
- ▶ CPSY 300 Psychology: Psychology and Law
- ▶ CPSY 302 Psychology: Child Development
- ▶ CPSY 304 Psychology: Psychology of Gender
- ▶ CPSY 308 Psychology: Psychology of Thinking
- ▶ CPSY 324 Psychology: Biological Psychology
- ▶ CPSY 325 Psychology: Psychological Disorders
- ▶ CPSY 402 Psychology: Adult Development
- ▶ CPSY 412 Psychology: Human Brain Circuitry
- ▶ CPSY 504 Psychology: Social Psychology
- ▶ CPSY 505 Psychology: Personality Theory
- ▶ CPSY 518 Psychology: Environmental Psychology
- ▶ CPSY 602 Psychology: Developmental Psychopathology
- ▶ CPSY 606 Psychology: Abnormal Psychology
- ▶ CPSY 607 Psychology: Drugs and Human Behaviour
- ▶ CPSY 614 Psychology: Psychology of Sport
- ▶ CPSY 620 Psychology: Psychology of Immigration
- ▶ CPSY 621 Psychology: Psychology of Human Sexuality
- ▶ CPSY 706 Psychology: Personal Growth and Positive Psychology
- ▶ CPSY 707 Psychology: Models of Stress and Adaptation
- ▶ CPSY 802 Psychology: Death, Dying, and Bereavement
- ▶ CPSY 805 Psychology: Adjustment, Stress and Coping
- ▶ CPSY 806 Psychology: Behaviour Modification
- ▶ CPSY 807 Psychology: Psychology of Prejudice
- ▶ CPSY 808 Psychology: Community Psychology
- ▶ CPSY 941 Psychology: Cross Cultural Psychology

## Specialization

Students may choose electives from a variety of areas in psychology, or they may choose to specialize to achieve their individual goals. The electives may be grouped as follows:

Abnormal Behaviour: CPSY 215, CPSY 325, CPSY 602, CPSY 606, CPSY 607, CPSY 805, CPSY 806

Biology and Behaviour: CPSY 214, CPSY 215, CPSY 324, CPSY 412, CPSY 607, CPSY 621

Growth and Development: CPSY 302, CPSY 402, CPSY 602, CPSY 802

Personality: CPSY 505, CPSY 706, CPSY 805

Social Behaviour: CPSY 304, CPSY 504, CPSY 518, CPSY 614, CPSY 807, CPSY 808

Social Issues: CPSY 300, CPSY 518, CPSY 607, CPSY 620, CPSY 808, CPSY 941

## Note to registered certificate program students

This certificate has been revised effective July 1, 2012. Students who formally registered in the certificate prior to July 1, 2012 must complete the program requirements in effect at the time they registered. For further information, please contact The Chang School at 416.979.5035 or ce@ryerson.ca.

### Electives

CPSY 214, CPSY 412, CPSY 518, and CPSY 941 added. CPSY 813 deleted.

### Specialization

Biology and Behaviour and Social Issues groups added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CPSY 300 Psychology: Psychology and Law
- ▶ CPSY 325 Psychology: Psychological Disorders
- ▶ CPSY 607 Psychology: Drugs and Human Behaviour

# PUBLIC ADMINISTRATION AND GOVERNANCE – LEVEL 1 (PADP)

Students who wish to obtain their Certificate in Public Administration and Governance or the Advanced Certificate in Public Administration and Governance, must apply through the Office of Undergraduate Admissions for admission to the Public Administration and Governance program. Do not use the standard continuing education certificate application. Upon completing these certificates, students may continue their studies to earn a degree in Public Administration and Governance. Please contact Joseph Zboralski, Department of Politics and Public Administration: [jzboralski@politics.ryerson.ca](mailto:jzboralski@politics.ryerson.ca).

The Certificate and Advanced Certificate in Public Administration and Governance are designed for working public sector employees, students aspiring to careers in the public service, and those interested in gaining knowledge about public administration and public policy in Canada.

These certificates will provide students with the following:

- ▶ a better understanding of organizations and operations in the public sector
- ▶ the attainment of analytic, administrative, communication, and management skills necessary for career development in the public sector and organizations that deal with it
- ▶ an awareness of the political forces that shape public administration and policy

These certificates fulfill Levels 1 and 2 of the Public Administration and Governance degree program.

Program Information: Department of Politics and Public Administration: [jzboralski@politics.ryerson.ca](mailto:jzboralski@politics.ryerson.ca)

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

## Admission Requirements

OSSD with six Grade 12 U or M credits (including English) with a minimum of 60 percent, or mature student status is required.

Grade 13 subjects/OSSHGD may be combined/substituted with OACs/OSSD. Students who present credits from the OSSHGD (Grade 13 stream) or in combination with credits from the OSSD (OAC stream) should ensure that the credits satisfy the requirements.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight single-term courses, with a cumulative grade point average of 1.67 or higher, is required. Students working toward a certificate must formally register in the Public Administration and Governance program (see introductory note above).

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CPPA 101 Politics and Public Administration: Cdn Public Administration I: Institutions
- ▶ CPPA 102 Politics and Public Administration: Cdn Public Administration II: Processes
- ▶ CPPA 125 Politics and Public Administration: Rights, Equity, and the State

## Required Group 1 (select two)

- ▶ CPPA 120 Politics and Public Administration: Canadian Politics and Government
- ▶ CPPA 121 Politics and Public Administration: Ontario Politics and Government
- ▶ CPPA 122 Politics and Public Administration: Local Politics and Government
- ▶ CPPA 124 Politics and Public Administration: Indigenous Politics and Governance

## Liberal Studies Elective Group A (One 1-term lower-level course required)

Liberal Studies courses are indicated by a “LL” for Lower Level and “UL” for Upper Level. Consult the undergraduate calendar for the complete list of Liberal Studies courses, and use the Course Search to search for your course by subject, term, time, or instruction mode.

## Professionally Related Elective Group B (Two 1-term courses required from Table I)

Students intending to proceed to further levels of the program should familiarize themselves with prerequisites pertaining to professionally related elective courses at all levels of the program as well as options for obtaining a minor. Consult the undergraduate calendar for a list of courses.

*Note: Upon successful completion of Level 1, students may apply for a Certificate in Public Administration and Governance by completing an Application to Graduate with a Certificate, prior to the appropriate application deadlines.*

## Distance Education

The following courses are available in a distance education format this academic year. Many Liberal Studies and Professionally Related electives are also offered via distance education; please check individual course descriptions.

- ▶ CPPA 101 Politics and Public Administration: Cdn Public Administration I: Institutions
- ▶ CPPA 102 Politics and Public Administration: Cdn Public Administration II: Processes
- ▶ CPPA 125 Politics and Public Administration: Rights, Equity, and the State
- ▶ CPPA 120 Politics and Public Administration: Canadian Politics and Government
- ▶ CPPA 122 Politics and Public Administration: Local Politics and Government

## PUBLIC ADMINISTRATION AND GOVERNANCE – LEVEL 2 (PADP)

Students who wish to obtain their Certificate in Public Administration and Governance or the Advanced Certificate in Public Administration and Governance, must apply through the Office of Undergraduate Admissions for admission to the Public Administration and Governance program. Do not use the standard continuing education certificate application. Upon completing these certificates, students may continue their studies to earn a degree in Public Administration and Governance. Please contact Joseph Zboralski, Department of Politics and Public Administration: [jzboralski@politics.ryerson.ca](mailto:jzboralski@politics.ryerson.ca).

The Certificate and Advanced Certificate in Public Administration and Governance are designed for working public sector employees, students aspiring to careers in the public service, and those interested in gaining knowledge about public administration and public policy in Canada.

These certificates will provide students with the following:

- ▶ a better understanding of organizations and operations in the public sector
- ▶ the attainment of analytic, administrative, communication, and management skills necessary for career development in the public sector and organizations that deal with it
- ▶ an awareness of the political forces that shape public administration and policy

These certificates fulfil Levels 1 and 2 of the Public Administration and Governance degree program.

Program Information: Department of Politics and Public Administration: [jzboralski@politics.ryerson.ca](mailto:jzboralski@politics.ryerson.ca)

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

### Admission Requirements

Successful completion of the Certificate in Public Administration and Governance – Level 1.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of eight single-term courses, with a cumulative grade point average of 1.67 or higher, is required. Students working toward a certificate must formally register in the Public Administration and Governance program (see introductory note).

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CPPA 211 Politics and Public Administration: Public Policy

## Required Group 1 (select three, not previously taken)

- ▶ CPPA 120 Politics and Public Administration: Canadian Politics and Government
- ▶ CPPA 121 Politics and Public Administration: Ontario Politics and Government
- ▶ CPPA 122 Politics and Public Administration: Local Politics and Government
- ▶ CPPA 235 Politics and Public Administration: Theories of the State
- ▶ CPPA 303 Politics and Public Administration: Financial Management
- ▶ CPPA 319 Politics and Public Administration: Politics of Work and Labour

## Liberal Studies Elective Group A (One 1-term lower-level course required)

Liberal Studies courses are indicated by a “LL” for Lower Level and “UL” for Upper Level. Consult the undergraduate calendar for the complete list of Liberal Studies courses, and use the Course Search to search for your course by subject, term, time, or instruction mode.

## Professionally Related Elective Group B (1 course required)

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 210 Economics: Inflation and Unemployment in Canada
- ▶ CECN 220 Economics: Evolution of the Global Economy
- ▶ CECN 320 Economics: Introduction to Financial Economics

## Professionally Related Elective Group C (Two 1-term courses required)

Please refer to the Undergraduate Calendar, Professionally Related Electives Table I for a complete list of appropriate courses.

Students intending to proceed to Level 3 of the program should familiarize themselves with prerequisites pertaining to professionally related elective courses at all levels of the program as well as options for obtaining a minor.

*Note: Upon successful completion of Level 2, students may apply for an Advanced Certificate in Public Administration and Governance by completing an Application to Graduate with a Certificate, prior to the appropriate application deadlines.*

Students who have successfully completed the requirements for the Certificate and Advanced Certificate are eligible to continue to the degree level. For more information, contact the Department of Politics and Public Administration, 416.979.5057.

## Distance Education

The following courses are available in a distance education format this academic year. Many Liberal Studies and Professionally Related electives are also offered via distance education; please check individual course descriptions.

- ▶ CPPA 120 Politics and Public Administration: Canadian Politics and Government
- ▶ CPPA 122 Politics and Public Administration: Local Politics and Government
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics

# PUBLIC ADMINISTRATION AND LEADERSHIP

This program is designed for individuals who have already completed a degree and who wish to deepen their understanding of the key aspects of public sector management. The curriculum is focused on key areas of policy development, public sector finance, collaborative governance, intergovernmental affairs, program evaluation, e-government, and administrative law. A special capstone course focuses on the nature and style of leadership in the public sector.

## Academic Coordinator:

Patrice Dutil: pdutil@politics.ryerson.ca

## Admission Requirements

Eligible applicants must have completed an undergraduate degree in any field and submit an Application for Admission to the academic coordinator for approval (an interview might be required). Applicants who do not have a background in politics or public administration and/or no experience in the public sector are encouraged to successfully complete COPA 103 prior to admission in the certificate.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Admission Application

Students seeking admission to this program are required to submit an application for pre-approval to the academic coordinator for the Certificate in Public Administration and Leadership. To obtain an application, visit the Forms and Documents section. The completed application, together with transcripts, may be presented to the academic coordinator during the Open House, or mailed to the address on the form.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (three required courses and three electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CPPA 211 Politics and Public Administration: Public Policy
- ▶ CPPA 404 Politics and Public Administration: Issues in Public Administration
- ▶ CPPA 501 Politics and Public Administration: Public Sector Leadership

## Electives (select three)

- ▶ CPPA 301 Politics and Public Administration: Administrative Law
- ▶ CPPA 303 Politics and Public Administration: Financial Management
- ▶ CPPA 335 Politics and Public Administration: Theories of Bureaucracy
- ▶ CPPA 401 Politics and Public Administration: Collaborative Governance
- ▶ CPPA 402 Politics and Public Administration: Program Planning and Evaluation
- ▶ CPPA 403 Politics and Public Administration: e-Government
- ▶ CPPA 414 Politics and Public Administration: Comparative Public Policy
- ▶ CPPA 425 Politics and Public Administration: Intergovernmental Relations

## Note to registered certificate program students

### Required

CPPA 501 replaces COPA 501.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CPPA 301 Politics and Public Administration: Administrative Law
- ▶ COPA 103 Politics and Public Administration: Public Administration in Canada

# PUBLIC RELATIONS

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

If a challenging career consulting with professional businesses, community organizations, or government agencies sounds appealing, then public relations may be for you. Public relations practitioners work with a variety of leaders and other professionals to protect and enhance organizational reputation; manage issues and crises; conduct media relations; develop internal and external communication programs; develop and manage communication budgets; and write supporting communication materials such as plans, reports, news releases, business presentations, newsletters, website content, and much more.

Recognized by the International Association of Business Communicators (IABC), the Certificate in Public Relations provides a curriculum that will hone your practical, analytical, and theoretical skills to prepare you for a career in public relations.

## Admission Requirements

Because of increasingly stringent hiring practices and trends in the public relations field, students must have an undergraduate degree or three-year community college diploma; mature students must have, at least, a high school diploma and four years of progressive work experience in public relations practice, or in a business, professional, or technical field.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Course Prerequisites

Successful completion of all stated prerequisites is required for registration in a course. Students who register in a course without successful completion of the prerequisites will be required to withdraw.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of the equivalent of eight 39-hour courses with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning

of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

CDPR 201

CDPR 111

Four of the following 39-hour courses (or equivalent combination of electives totalling 156 hours): CDPR 104; CDPR 108; CDPR 106; CDPR 113; CDPR 114

CDPR 105

CDPR 107

## Required Courses

- ▶ CDPR 105 Public Relations: Research and Program Evaluation
- ▶ CDPR 107 Public Relations: Public Relations Project
- ▶ CDPR 111 Public Relations: Writing for Public Relations
- ▶ CDPR 201 Public Relations: Public Relations Principles I

## Electives (four 39-hour courses or equivalent combination of electives totalling 156 hours)

### 39-Hour Courses

- ▶ CDPR 104 Public Relations: Planning Programming and Budgeting
- ▶ CDPR 106 Public Relations: Media Relations
- ▶ CDPR 108 Public Relations: Social Media in Public Relations
- ▶ CDPR 113 Public Relations: Internal Communications Management
- ▶ CDPR 114 Public Relations: Reputation Management

### 19.5-Hour Courses

Students may substitute two of the following 19.5-hour courses for any of the above 39-hour electives.

- ▶ CDPR 102 Public Relations: Business Presentations
- ▶ CDPR 103 Public Relations: Advanced PR Writing
- ▶ CDPR 115 Public Relations: Corporate Social Responsibility

## Note to registered certificate program students

### Electives (39-Hour Courses)

CDPR 105 moved to Required Courses, thereby increasing the number of Required Courses to four and decreasing the number of 39-Hour Electives to four.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CDPR 105 Public Relations: Research and Program Evaluation
- ▶ CDPR 111 Public Relations: Writing for Public Relations
- ▶ CDPR 201 Public Relations: Public Relations Principles I
- ▶ CDPR 102 Public Relations: Business Presentations
- ▶ CDPR 103 Public Relations: Advanced PR Writing
- ▶ CDPR 115 Public Relations: Corporate Social Responsibility
- ▶ CDPR 104 Public Relations: Planning Programming and Budgeting
- ▶ CDPR 106 Public Relations: Media Relations
- ▶ CDPR 108 Public Relations: Social Media in Public Relations
- ▶ CDPR 113 Public Relations: Internal Communications Management
- ▶ CDPR 114 Public Relations: Reputation Management

## PUBLISHING

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This program teaches the skills necessary to publish books successfully. The program will be of interest to the following:

- ▶ those who want to enter the publishing industry
- ▶ those who are employed in the publishing industry or in areas where publishing skills are required
- ▶ those who are working as freelancers in publishing-related fields
- ▶ those who wish to upgrade their credentials with a view to career change

For detailed certificate and program information, please visit [www.ryerson.ca/ce/publishing](http://www.ryerson.ca/ce/publishing).

For related career information, please visit Industry Overview.

### Instructors

Our instructors are respected industry experts. They all work in publishing and bring up-to-date, applied knowledge to every course. Visit [www.ryerson.ca/ce/publishinginstructors](http://www.ryerson.ca/ce/publishinginstructors) for current instructor biographies.

### Awards

Students registered in the certificate program may apply for the program's awards and bursary:

Marsh Jeanneret Memorial Award

Pearson Canada Award

Stephen J. Mills Mentorship Award

Wallace A. Matheson Award for Creativity and Innovation in Educational Publishing

Rosemary Shipton Award for Excellence in Book Editing

Visit [www.ryerson.ca/ce/publishingawards](http://www.ryerson.ca/ce/publishingawards) for more details.

### Internships

We have an extensive network of industry partnerships that provide direct links between classroom experience and a career. Visit [www.ryerson.ca/ce/publishinginternships](http://www.ryerson.ca/ce/publishinginternships) to see the companies that may be offering industry internships to students in the program.

### Admission Requirements

Undergraduate degree, or mature student status with related professional experience and education, is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Notice to Students

Correct use of the English language is essential in the publishing industry. It is therefore an element in the evaluation and grading of assignments.

Students with no background in publishing are strongly advised to begin by taking either overview course (CDPB 100 or CDPB 200). Students with full-time positions are advised to register in no more than two credits per term. Specialized half-credit courses require some knowledge of subject or industry. In general, comfort with computers and a knowledge of appropriate software are an asset.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of eight 39-hour courses or the equivalent, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CDPB 100 Publishing: Publishing Overview: Trade
- ▶ CDPB 200 Publishing: Publishing Overview: Education

## Electives (six 39-hour courses or equivalent 19.5-hour courses required)

### 39-Hour Courses

- ▶ CDPB 101 Publishing: The Business of Book Publishing
- ▶ CDPB 102 Publishing: Copy Editing for Books, Journals, and Reports
- ▶ CDPB 103 Publishing: Production for Books, Journals, and Reports
- ▶ CDPB 104 Publishing: Introduction to Book Design

- ▶ CDPB 105 Publishing: Sales and Marketing for Book Publishers
- ▶ CDPB 110 Publishing: Publicity for Book Publishers
- ▶ CDPB 201 Publishing: Literary Rights Management
- ▶ CDPB 202 Publishing: Substantive and Stylistic Editing
- ▶ CDPB 212 Publishing: Visual Skills for Publishing
- ▶ CDPB 312 Publishing: Practical Grammar and Punctuation
- ▶ CDPB 803 Publishing: Digital Publishing and Production

### 19.5-Hour Courses

Students may substitute any two of the following 19.5-hour courses for any one of the above 39-hour electives.

- ▶ CDPB 301 Publishing: Publishing for Children
- ▶ CDPB 302 Publishing: Government Reports
- ▶ CDPB 304 Publishing: Scholarly and Reference Publishing
- ▶ CDPB 306 Publishing: Trade Books: Fiction
- ▶ CDPB 309 Publishing: Editing Books for Children and Teens
- ▶ CDPB 310 Publishing: Proofreading for Books, Journals, and Reports
- ▶ CDPB 311 Publishing: Indexing for Books, Journals, and Reports

## Note to registered certificate program students

### Electives (39-Hour Courses)

CDPB 210 and CDPB 802 deleted.  
CDPB 212, CDPB 312, and CDPB 803 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CDPB 100 Publishing: Publishing Overview: Trade
- ▶ CDPB 200 Publishing: Publishing Overview: Education
- ▶ CDPB 301 Publishing: Publishing for Children
- ▶ CDPB 302 Publishing: Government Reports
- ▶ CDPB 304 Publishing: Scholarly and Reference Publishing
- ▶ CDPB 306 Publishing: Trade Books: Fiction
- ▶ CDPB 309 Publishing: Editing Books for Children and Teens
- ▶ CDPB 310 Publishing: Proofreading for Books, Journals, and Reports
- ▶ CDPB 311 Publishing: Indexing for Books, Journals, and Reports
- ▶ CDPB 101 Publishing: The Business of Book Publishing
- ▶ CDPB 102 Publishing: Copy Editing for Books, Journals, and Reports
- ▶ CDPB 103 Publishing: Production for Books, Journals, and Reports
- ▶ CDPB 104 Publishing: Introduction to Book Design
- ▶ CDPB 105 Publishing: Sales and Marketing for Book Publishers
- ▶ CDPB 110 Publishing: Publicity for Book Publishers
- ▶ CDPB 202 Publishing: Substantive and Stylistic Editing
- ▶ CDPB 212 Publishing: Visual Skills for Publishing
- ▶ CDPB 312 Publishing: Practical Grammar and Punctuation

## Condensed Scheduling Option

This spring, CDPB 999 Publishing Intensive participants can complete six courses in the Certificate in Publishing, and access specialized material only available in the Publishing Intensive course.

## QUANTITATIVE ECONOMICS

Quantitative skills are valued highly by many employers. This certificate will equip students with the theoretical and quantitative skills that are required by those working as applied economists.

For other economics certificates, please visit [www.ryerson.ca/ce/economics](http://www.ryerson.ca/ce/economics).

### Academic Coordinator:

Michael Jolly

### Admission Requirements

OSSD with six Grade 12 U (including Grade 12 U credits in English and Mathematics) or M credits, or equivalent, or mature student status.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

### Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of 10 courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

### Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

### Required Courses

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 129 Economics: Statistics for Economics I
- ▶ CECN 189 Economics: Introduction to Mathematics for Economics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CECN 230 Economics: Mathematics for Economics
- ▶ CECN 301 Economics: Intermediate Macroeconomics I
- ▶ CECN 329 Economics: Statistics for Economics II
- ▶ CECN 627 Economics: Econometrics I

### Electives (select two)

- ▶ CECN 504 Economics: Intermediate Microeconomics I
- ▶ CECN 600 Economics: Intermediate Macroeconomics II
- ▶ CECN 605 Economics: Labour Economics
- ▶ CECN 700 Economics: Intermediate Microeconomics II
- ▶ CECN 702 Economics: Econometrics II

### Note to registered certificate program students

#### Required Courses

CECN 189 replaces CMTH 189.

### Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics

# RESIDENTIAL CARE FOR CHILDREN AND YOUTH

*Important Note: The Certificate in Residential Care for Children and Youth is currently under review and will not be accepting new registrants at this time. For further information, please contact the Community Services area at 416.979.5035.*

Registered certificate program students should contact the Academic Coordinator, Sheldon Reinsilber (at sreinsil@ryerson.ca or 416.979.5000, ext. 4594), for guidance on how to complete their program requirements.

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

For detailed certificate and program information, please visit [www.ryerson.ca/ce/rccy](http://www.ryerson.ca/ce/rccy).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status is required.

Registrants must be employed in a residential care facility or have permission of the academic coordinator.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. Up to three course credits may be granted on the basis of courses successfully completed at other post-secondary institutions.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CVCY 101 Residential Care for Children and Youth: Communications in Residential Care
- ▶ CVCY 102 Residential Care for Children and Youth: Human Growth and Development
- ▶ CVCY 103 Residential Care for Children and Youth: Principles of Group Care
- ▶ CVCY 104 Residential Care for Children and Youth: Residential Care Techniques
- ▶ CVCY 105 Residential Care for Children and Youth: Health, Ethics and Professionalism
- ▶ CVCY 200 Residential Care for Children and Youth: Reflective Practice Seminar

# RETAIL MANAGEMENT

Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.

This certificate is designed for students seeking or currently employed in retail, the largest employment sector in Canada. The program will focus on fundamental retail topics and provides students with the ability to choose electives based on broad interests or specific areas such as buying, operations, or management.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/retail](http://www.ryerson.ca/ce/retail).

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status, and a minimum of one years' related professional experience in the retail industry is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses (two required courses and four electives), with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

Students who demonstrate the requisite combination of education and work experience may apply to the academic coordinator waive CRMG 200. Students granted this waiver must complete five elective courses instead of four.

- ▶ CRMG 200 Retail Management:  
Intro to Retail and Services Management
- ▶ CRMG 302 Retail Management:  
Retail Consumer Insight

|  |   |  |  |
|--|---|--|--|
| <b>Required Courses</b><br>(2 Courses)             | » | CRMG 200<br>Intro to Retail and Services Management  | CRMG 302<br>Retail Consumer Insight                  |
| <b>Professional Development Achievement Series</b> | » | <b>Buying Stream</b>   | <b>Operations Stream</b>                             |
|  |   | CRMG 400<br>Buying Process I   | CRMG 301<br>Retail Operations Management             |
|  |   | CRMG 452<br>Visual Merchandising and Planning  | CRMG 303<br>Service Quality Management               |
|  |   | CRMG 909<br>Advanced Buying Process II   | CRMG 925<br>Leading in Retail Services Organizations |
|  |   | Select a combination of any four electives, including all CRMG courses<br>or<br>CENT 500<br>CGMS 200<br>CMHR 405<br>CMHR 523<br>CMKT 100<br>CQMS 102 |  |
| <b>Suggested Electives</b><br>(Choose one course)  | » | <b>Buying Stream</b>   | <b>Operations Stream</b>                             |
|  |   | CRMG 907<br>Relationship Marketing   | CRMG 434<br>Intro to Logistics and Supply Chain Mgmt |
|  |   | CRMG 910<br>Multi-Channel Retailing  | CRMG 902<br>Franchising                              |
|  |   | CRMG 916<br>Managing B2B Channels  | CRMG 910<br>Multi-Channel Retailing                  |
|  |   | CRMG 919<br>Retail Business Analytics  | CRMG 911<br>Retail Sales Management                  |
|  |   | Select a combination of any four electives, including all CRMG courses<br>or<br>CENT 500<br>CGMS 200<br>CMHR 405<br>CMHR 523<br>CMKT 100<br>CQMS 102 |  |

## Electives

Students select four or five electives.

- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CRMG 301 Retail Management: Retail Operations Management
- ▶ CRMG 303 Retail Management: Service Quality Management
- ▶ CRMG 400 Retail Management: Buying Process I
- ▶ CRMG 434 Retail Management: Intro to Logistics and Supply Chain Mgmt
- ▶ CRMG 452 Retail Management: Visual Merchandising and Space Planning
- ▶ CRMG 902 Retail Management: Franchising
- ▶ CRMG 907 Retail Management: Relationship Marketing
- ▶ CRMG 909 Retail Management: Advanced Buying Process II
- ▶ CRMG 910 Retail Management: Multi-Channel Retailing
- ▶ CRMG 911 Retail Management: Retail Sales Management
- ▶ CRMG 916 Retail Management: Managing B2B Channels
- ▶ CRMG 919 Retail Management: Retail Business Analytics
- ▶ CRMG 925 Retail Management: Leading in Retail Service Organizations
- ▶ CZRM 100 Retail Management: Industry Project

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CRMG 200 Retail Management: Intro to Retail and Services Management
- ▶ CRMG 302 Retail Management: Retail Consumer Insight
- ▶ CENT 500 Entrepreneurship: New Venture Startup
- ▶ CGMS 200 Global Management: Introduction to Global Management
- ▶ CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- ▶ CMHR 523 Human Resources: Human Resources Management
- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CQMS 102 Quantitative Methods: Business Statistics I
- ▶ CRMG 303 Retail Management: Service Quality Management
- ▶ CRMG 400 Retail Management: Buying Process I
- ▶ CRMG 434 Retail Management: Intro to Logistics and Supply Chain Mgmt
- ▶ CRMG 452 Retail Management: Visual Merchandising and Space Planning
- ▶ CRMG 902 Retail Management: Franchising
- ▶ CRMG 907 Retail Management: Relationship Marketing
- ▶ CRMG 909 Retail Management: Advanced Buying Process II
- ▶ CRMG 910 Retail Management: Multi-Channel Retailing
- ▶ CRMG 911 Retail Management: Retail Sales Management
- ▶ CRMG 916 Retail Management: Managing B2B Channels
- ▶ CRMG 919 Retail Management: Retail Business Analytics
- ▶ CRMG 925 Retail Management: Leading in Retail Service Organizations

## Professional Development

You can receive an acknowledgement of professional achievement once you have successfully completed three courses as follows:

**Professional Development Award: Retail Buying** requires completion of CRMG 400, CRMG 452, and CRMG 909.

**Professional Development Award: Retail Operations** requires completion of CRMG 301, CRMG 303, and CRMG 925.

The three courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Retail Management certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the three courses, email ce@ryerson.ca with your name, student number, and the three courses you have completed. Upon verification, you will receive your professional development award.

## Course Delivery Schedule

|                  | 2013/14 | FALL     | WINTER   | SPRING/SUMMER |
|------------------|---------|----------|----------|---------------|
| <b>REQUIRED</b>  |         |          |          |               |
| CRMG 200         |         | I        | I        | I             |
| CRMG 302         |         |          |          | I             |
| <b>ELECTIVES</b> |         |          |          |               |
| CENT 500         |         | I        | I        | C, I          |
| CGMS 200         |         | C, CI, I | C, CI, I | C, I          |
| CMHR 405         |         | C, I     | C, I     | C, I          |
| CMHR 523         |         | C, CI, I | C, CI, I | C, I          |
| CMKT 100         |         | C, I     | C, I     | C, I          |
| CQMS 102         |         | C, I     | C, I     | C, I          |
| CRMG 301         |         |          |          |               |
| CRMG 303         |         |          |          | I             |
| CRMG 400         |         |          | I        |               |
| CRMG 434         |         |          | I        |               |
| CRMG 452         |         | I        |          |               |
| CRMG 902*        |         |          | I        |               |
| CRMG 907         |         |          |          | I             |
| CRMG 909         |         |          |          | I             |
| CRMG 910         |         |          | I        |               |
| CRMG 911         |         | I        |          |               |
| CRMG 916         |         | I        |          |               |
| CRMG 919         |         |          |          | I             |
| CRMG 925         |         | I        |          |               |

**C** Classroom

**CI** Classroom/Internet

**I** Distance Education via Internet

\*CRMG 902 (to be offered in 2014) will alternate with CRMG 301.

This schedule is subject to revision but can be used as a planning guide.

# ROBOTICS AND EMBEDDED SYSTEMS

*Note: This certificate program may be completed entirely at a distance. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

This certificate program provides adult learners with hands-on opportunities to acquire knowledge and skills that will permit them to contribute and respond effectively to our collective societal need to provide innovation through advances in robotics and embedded systems product and device development. Topics covered will range from micro-processor-based control systems to systems-on-chip (SoC) design to device software development for the purposes of consumer and commercial product development in any number of fields. Participants will build as they learn, producing robotic and embedded systems throughout the duration of the program.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/robotics](http://www.ryerson.ca/ce/robotics).

## Admission Requirements

Mature student status and evidence of relevant college or university level coursework, or equivalent

OR

Mature student status together with relevant industrial or professional experience

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

- CKRE 100
- CKRE 110
- CKRE 120
- CKRE 130
- CKRE 140
- CKRE 150

## Required Courses

- ▶ CKRE 100 Robotics and Embedded Systems: Embedded Systems Programming
- ▶ CKRE 110 Robotics and Embedded Systems: Digital Logic and Hardware Architecture
- ▶ CKRE 120 Robotics and Embedded Systems: Programming Robotics Systems
- ▶ CKRE 130 Robotics and Embedded Systems: Embedded Systems Hardware Architecture and Implementation
- ▶ CKRE 140 Robotics and Embedded Systems: Real-Time Embedded Systems Programming
- ▶ CKRE 150 Robotics and Embedded Systems: Emerging Issues in Robotics and Embedded Systems

# SOCIAL SCIENCES AND HUMANITIES FOUNDATIONS

This certificate provides an opportunity to explore areas in social sciences and humanities and develop transferable university-level skills such as critical analysis and problem solving. Courses are based on the common first-year foundation of Ryerson's Faculty of Arts programs and may provide an opportunity for students to strengthen applications for full-time undergraduate degrees. Successfully completed courses may be considered as transfer credits to higher education degree programs, subject to admission and requirements for credit transfer.

## Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status.

Students who have not met the above requirements are required to take CENG 108 as one of their four electives. It is recommended that they take CENG 108 immediately following CSSH 205, since both courses will provide a strong foundation in the writing skills needed to complete this certificate successfully.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised to take the courses in the following sequence:

CSSH 205

Electives (four selections – two from Humanities and two from Social Sciences)

CSSH 301

Students who are planning to pursue an Arts degree and who do not have an English Grade 12 U or M course with a grade of 70% or higher are required to take CENG 108 as one of their four electives. It is recommended that they take CENG 108 immediately following CSSH 205, since both courses will provide a strong foundation in the writing skills needed to complete this certificate successfully.

## Required Courses

- ▶ CSSH 205 Social Sciences: Academic Writing and Research
- ▶ CSSH 301 Social Sciences: Research Design and Qualitative Methods

## Electives (select a total of four courses)

*Electives – Humanities (select two)*

- ▶ CFRE \*\*\* A French course†
- ▶ CSPN \*\*\* A Spanish course†
- ▶ CACS 100 Contemporary Studies: Ideas That Shape the World I
- ▶ CACS 200 Contemporary Studies: Ideas That Shape the World II
- ▶ CENG 108 English Literature: Introduction to Fiction
- ▶ CENG 208 English Literature: Introduction to Non-Fiction
- ▶ CHIS 104 History: Ten Days That Shook The World
- ▶ CHIS 105 History: Inventing Popular Culture
- ▶ CHIS 106 History: Technology, Warfare, and Social Change
- ▶ CHIS 107 History: Colonization, Colonialism, and Independence
- ▶ CPHL 101 Philosophy: Plato and the Roots of Western Philosophy
- ▶ CPHL 201 Philosophy: Problems in Philosophy
- ▶ CPHL 333 Philosophy: Philosophy of Human Nature
- ▶ CPHL 366 Philosophy: Existentialism and Art and Culture
- ▶ CSSH 105 Social Sciences: Critical Thinking I

**Electives – Social Sciences (select two)**

- ▶ CCRM 100 Criminal Justice and Criminology:  
Introduction to Canadian Criminal Justice
- ▶ CCRM 102 Criminal Justice and Criminology:  
Introduction to Criminology
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CEUS 102 Environment and Urban Sustainability:  
Environment and Sustainability
- ▶ CEUS 202 Environment and Urban Sustainability:  
Sustaining the City's Environments
- ▶ CGEO 131 Geography: Energy, Earth, and Ecosystems
- ▶ CGEO 151 Geography: Location, Location, Location
- ▶ CPOG 100 Politics and Public Administration:  
People, Power, and Politics
- ▶ CPOG 110 Politics and Public Administration:  
Power and Influence in Canadian Politics
- ▶ CPPA 101 Politics and Public Administration:  
Cdn Public Administration I: Institutions
- ▶ CPPA 102 Politics and Public Administration:  
Cdn Public Administration II: Processes
- ▶ CPSY 102 Psychology: Introduction to Psychology I
- ▶ CPSY 202 Psychology: Introduction to Psychology II
- ▶ CSOC 105 Sociology: Introduction to Sociology
- ▶ CSOC 107 Sociology: Sociology of the Everyday
- ▶ CSSH 102 Social Sciences: Learning and  
Development Strategies

† An online placement test is required. See the Department's website for details: [www.ryerson.ca/lc/placementtest/index.html](http://www.ryerson.ca/lc/placementtest/index.html).

**Distance Education**

The following courses are available in a distance education format this academic year.

- ▶ CENG 108 English Literature: Introduction to Fiction
- ▶ CECN 104 Economics: Introductory Microeconomics
- ▶ CECN 204 Economics: Introductory Macroeconomics
- ▶ CPPA 101 Politics and Public Administration:  
Cdn Public Administration I: Institutions
- ▶ CPPA 102 Politics and Public Administration:  
Cdn Public Administration II: Processes

**STRATEGIC MARKETING**

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

Why strategic? Because you choose the courses you need to meet your career goals. This certificate is designed to meet the needs of marketing professionals wanting to develop expertise in a specific area or take a variety of courses to address knowledge gaps, as well as career changers wanting the fundamentals of marketing.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/marketing](http://www.ryerson.ca/ce/marketing).

For related career information, please visit Industry Overview.

**Admission Requirements**

OSSD with six Grade 12 U or M credits, or its equivalent, or mature student status with experience in business is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

**Program Open House**

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

**Certificate Requirements**

The successful completion of six courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate. In exceptional cases credits may be granted on the basis of courses successfully completed at other institutions. Please note that you must apply for formal Transfer Credit.

**Certificate Registration**

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

**Requirements for Graduation**

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/

Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Recommended Sequence

Students are advised that CMKT 100 must be taken before CMKT 300, and both of these courses must be successfully completed prior to enrollment in all other Marketing courses.

## Required Courses

Students who demonstrate the requisite combination of education and work experience may apply to the academic coordinator to waive CMKT 100. Students granted this waiver must complete five Elective courses instead of four.

- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CMKT 300 Marketing: Marketing Metrics and Analysis

## Electives

Students select four or five electives from one or more of the five streams.

### Marketing Innovation Stream

- ▶ CMKT 500 Marketing: Marketing Research
- ▶ CMKT 723 Marketing: Marketing in the Service Industry
- ▶ CMKT 730 Marketing: Assessing/Managing Market Opportunities
- ▶ CMKT 731 Marketing: Competitive Intelligence

### Marketing Research Stream

- ▶ CMKT 400 Marketing: Understanding Consumers and the New Media
- ▶ CMKT 500 Marketing: Marketing Research
- ▶ CMKT 600 Marketing: Integrated Case Analysis
- ▶ CMKT 700 Marketing: Business Intelligence/Decision Modeling
- ▶ CMKT 702 Marketing: Advanced Marketing Management

### Social Media Stream

- ▶ CITM 350 Information Technology Management: Concepts of e-Business
- ▶ CMKT 400 Marketing: Understanding Consumers and the New Media
- ▶ CMKT 510 Marketing: Innovations in Marketing
- ▶ CMKT 700 Marketing: Business Intelligence/Decision Modeling

### Sports Marketing Stream

- ▶ CMKT 504 Marketing: Effective Persuasion
- ▶ CMKT 600 Marketing: Integrated Case Analysis
- ▶ CMKT 702 Marketing: Advanced Marketing Management
- ▶ CMKT 828 Marketing: Sport Marketing Concepts and Strategy
- ▶ CMKT 829 Marketing: International Sport Marketing

### General Stream

- ▶ CGMS 522 Global Management: International Marketing
- ▶ CITM 350 Information Technology Management: Concepts of e-Business
- ▶ CMKT 400 Marketing: Understanding Consumers and the New Media
- ▶ CMKT 500 Marketing: Marketing Research

- ▶ CMKT 504 Marketing: Effective Persuasion
- ▶ CMKT 510 Marketing: Innovations in Marketing
- ▶ CMKT 600 Marketing: Integrated Case Analysis
- ▶ CMKT 700 Marketing: Business Intelligence/Decision Modeling
- ▶ CMKT 702 Marketing: Advanced Marketing Management
- ▶ CMKT 723 Marketing: Marketing in the Service Industry
- ▶ CMKT 730 Marketing: Assessing/Managing Market Opportunities
- ▶ CMKT 731 Marketing: Competitive Intelligence
- ▶ CMKT 828 Marketing: Sport Marketing Concepts and Strategy
- ▶ CMKT 829 Marketing: International Sport Marketing
- ▶ CMKT 850 Marketing: Applied Research Project

## Note to registered certificate program students

### Electives

#### Marketing Research Stream

CMKT 850 deleted.  
CMKT 600 and CMKT 702 added.

#### Sports Marketing Stream

CMKT 850 deleted.  
CMKT 600 and CMKT 702 added.

#### General Stream

CMKT 702 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CMKT 100 Marketing: Principles of Marketing
- ▶ CMKT 300 Marketing: Marketing Metrics and Analysis
- ▶ CITM 350 Information Technology Management: Concepts of e-Business
- ▶ CMKT 400 Marketing: Understanding Consumers and the New Media
- ▶ CMKT 500 Marketing: Marketing Research
- ▶ CMKT 723 Marketing: Marketing in the Service Industry
- ▶ CMKT 828 Marketing: Sport Marketing Concepts and Strategy

# SUSTAINABILITY MANAGEMENT

*Note: Many of the courses in this program are available by distance education; refer to the Distance Education section below. Visit the distance education website at [www.ryerson.ca/ce/des](http://www.ryerson.ca/ce/des) for further information.*

The post-baccalaureate certificate consists of six courses: three required and three electives. The first required course provides conceptual, theoretical, historical, and practical frameworks for understanding how society addresses sustainability issues, and the second required course uses these frameworks to examine sustainability-related issues society faces today. The third required course is a unique capstone course where learners have the opportunity to integrate sustainability's "Triple-Bottom Line" (TBL/3BL) or "People-Planet-Profit" (PPP) approach – this being sustainable development's interlinking of social, economic, and environmental dimensions – by applying competencies and knowledge acquired throughout the curriculum.

Through three elective courses in specialized streams of Natural Environment, Urban Environment, and Socioeconomics of Sustainability, learners will be equipped with specific knowledge pertinent to their personal goals or professional interests.

For detailed certificate and program information, please visit [www.ryerson.ca/ce/sustain](http://www.ryerson.ca/ce/sustain).

## Admission Requirements

Applicants must meet one of the following criteria:

- ▶ Undergraduate degree in a relevant field with a GPA of 2.0, or equivalent
- OR
- ▶ A post-secondary diploma with a GPA of 2.0, or equivalent, AND two years of professional experience in a relevant field
- OR
- ▶ A relevant post-secondary certificate with a GPA of 2.0, or equivalent, AND three years of professional practice in a relevant field

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to the Curriculum Advising website at [www.ryerson.ca/currentstudents/curriculumadvising](http://www.ryerson.ca/currentstudents/curriculumadvising) for complete details.

## Transfer Credits

Up to three transfer credits may be granted for previous studies similar to the courses listed in the elective streams. If an appropriate equivalency is established, a specific credit will be granted; however, a generic transfer credit (CKSS GEN) will be considered if a direct course equivalency cannot be established, but the course falls within one of the three elective streams of the certificate.

The primary requirements for a course to be considered for the CKSS GEN credit is as follows:

- ▶ it must connect to and/or fall within one of the Natural Environment, Urban Environment, or Socioeconomics of Sustainability elective streams
- OR
- ▶ it must cover, in varying degrees, all of the social, economic, and environmental dimensions of sustainability/sustainable development

## Program Open House

Students who have questions about the admission requirements and/or would like to know more about this certificate are invited to attend a Program Open House. Please see Open House for dates, times, and location.

## Certificate Requirements

The successful completion of six single-term courses, with a cumulative grade point average of 1.67 or higher, is required for the certificate.

## Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in crediting external courses and/or courses previously taken at Ryerson, students should register in the certificate at the beginning of their first course (see also Courses and Programs FAQ). For complete details on the advantages of early registration, registration deadlines, and Transfer Credit restrictions, all students should read Registration in a Certificate Program at [www.ryerson.ca/ce/certreg](http://www.ryerson.ca/ce/certreg).

## Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the year you registered in the certificate. Certificate requirements must be completed within six years from the time you were first admitted into the certificate program. In some circumstances, certificate requirements may change, resulting in courses no longer being available. In such cases, Course Substitutions/Directives may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

## Required Courses

- ▶ CKSS 100 Sustainability: Fundamentals in Sustainability I
- ▶ CKSS 101 Sustainability: Fundamentals in Sustainability II
- ▶ CKSS 102 Sustainability: Capstone Experiential Learning Course

## Electives

Students select a total of three electives from one or more of the three streams.

### Natural Environment Electives

- ▶ CKES 130 Environmental Engineering Science: Applied Ecology
- ▶ CKES 160 Environmental Engineering Science: Waste Management
- ▶ CKES 180 Environmental Engineering Science: Site Assessment
- ▶ CKES 190 Environmental Engineering Science: Renewable Energy and Green Technology
- ▶ CKES 210 Environmental Engineering Science: Applied Environmental Analysis
- ▶ CKES 220 Environmental Engineering Science: Environmental Law and Practice

### Urban Environment Electives

- ▶ CKAR 500 Architecture: Sustainable Buildings
- ▶ CKAR 601 Architectural Preservation and Conservation: Building Science for Architectural Preservation and Conservation

- ▶ CKAR 610 Architecture: Architectural Preservation and Conservation Techniques
- ▶ CKEI 110 Energy Management: Energy Conservation: Emerging Trends
- ▶ CKEI 130 Energy Management: An Introduction to Smart Grid
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CKLA 430 Landscape Design: Making and Meaning of Landscapes
- ▶ CKLA 450 Landscape Design: Landscape Restoration
- ▶ CVFN 410 Food Security: Understanding Urban Agriculture
- ▶ CVFN 411 Food Security: Dimensions of Urban Agriculture
- ▶ CVFN 412 Food Security: Urban Agriculture Types
- ▶ CVFN 413 Food Security: Urban Agriculture Policy-Making

### Socioeconomics of Sustainability Electives

- ▶ CECN 502 Economics: Economics of Natural Resources
- ▶ CECN 510 Economics: Environmental Economics
- ▶ CFNY 404 Food Security: Food Policy and Programs for Food Security
- ▶ CFNY 407 Food Security: Community Development and Food Security
- ▶ CHTT 510 Hospitality and Tourism: Sustainable Tourism Development
- ▶ CKEI 100 Energy Management: Energy Innovation and Entrepreneurship
- ▶ CKEI 120 Energy Management: Energy and the Public Policy Debate in Canada
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKSS 201 Sustainability: Sustainability Topics and Trends

## Note to registered certificate program students

### Natural Environment Electives

CKEI 190, CVFN 411, CVFN 412, and CVFN 413 added.

### Urban Environment Electives

CKEI 110 and CKEI 130 added.

### Socioeconomics of Sustainability Electives

CHTT 510, CKEI 100, CKEI 120, CKPM 202, and CKSS 201 added.

## Distance Education

The following courses are available in a distance education format this academic year.

- ▶ CKSS 100 Sustainability: Fundamentals in Sustainability I
- ▶ CKSS 101 Sustainability: Fundamentals in Sustainability II
- ▶ CFNY 404 Food Security: Food Policy and Programs for Food Security
- ▶ CFNY 407 Food Security: Community Development and Food Security
- ▶ CKPM 202 Project Management: Fundamentals of Project Management
- ▶ CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- ▶ CVFN 410 Food Security: Understanding Urban Agriculture
- ▶ CVFN 411 Food Security: Dimensions of Urban Agriculture
- ▶ CVFN 412 Food Security: Urban Agriculture Types
- ▶ CVFN 413 Food Security: Urban Agriculture Policy-Making

| Theory and Principles<br>(2 Required Courses)   | CKSS 100<br>Fundamentals of Sustainability I      |  | CKSS 101<br>Fundamentals of Sustainability II    |  |   |
|---|---|--|--|--|---|
|   | Natural Environment                               | Urban Environment  | Socioeconomics of Sustainability                 |  |   |
| Elective Streams<br>(3 Courses)<br><br>Specialized content relevant to student's professional goals | CKEI 190<br>Renewable Energy and Green Technology | CKAR 500<br>Sustainable Buildings  | CKLA 430<br>The Making and Meaning of Landscapes | CECN 502<br>Economics and Natural Resources            | CKEI 120<br>Energy and the Public Policy Debate in Canada |
|   | CKES 130<br>Applied Ecology                       | CKAR 601<br>Building Science for Architectural Presentation and Conservation | CKLA 450<br>Landscape Restoration                | CECN 510<br>Environmental Economics                    | CKPM 202<br>Fundamentals of Project Management            |
|   | CKES 160<br>Waste Management                      | CKAR 610<br>Architectural and Presentation Techniques                        | CVFN 410<br>Understanding Urban Agriculture      | CFNY 404<br>Food Policy and Programs for Food Security | CKSS 201<br>Sustainability Topics and Trends              |
|   | CKES 180<br>Site Assessment                       | CKEI 110<br>Energy Efficiency and Demand Response                            | CVFN 411<br>Dimensions of Urban Agriculture      | CFNY 407<br>Community Development and Food Security    |   |
|   | CKES 190<br>Renewable Energy and Green Technology | CKEI 130<br>An Introduction to Smart Grid                                    | CVFN 412<br>Urban Agriculture Types              | CHTT 510<br>Sustainability Tourism Development         |   |
|   | CKES 210<br>Applied Environmental Analysis        | CKLA 400<br>Ecology and Sustainable Landscapes                               | CVFN 413<br>Urban Agriculture Policy-Making      | CKEI 100<br>Energy Innovation and Entrepreneurship     |   |
|   | CKES 220<br>Environmental Law and Practice        |  |  |  |   |
|   | Experiential Learning<br>(1 Required Course)      | CKSS 102<br>Capstone Experiential Learning Course                            |  |  |   |

# COURSE SERIES

## ARTS AND ENTERTAINMENT ADMINISTRATION

If you work in the cultural sector as an individual or as a group, Ryerson University's G. Raymond Chang School of Continuing Education can help you develop entrepreneurial skills to support your creative work through a new three-course series in Arts and Entertainment Administration. The course series will provide 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. A key aspect of instruction will be to address issues for both the for-profit and not-for-profit sectors.

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

### Required Courses

- ▶ CDAM 100 Arts and Entertainment Administration: Making a Living in the Arts
- ▶ CDAM 101 Arts and Entertainment Administration: Communication and Promotion for the Arts
- ▶ CDAM 102 Arts and Entertainment Administration: Audience Outreach and Engagement

## 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.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

For more information, please visit [www.ryerson.ca/ce](http://www.ryerson.ca/ce) or call 416.979.5035.

### Required Courses (select three)

- ▶ CKCS 900 Computer Science: Introduction to C++
- ▶ CKCS 901 Computer Science: Introduction to Cloud Computing
- ▶ CKCS 902 Computer Science: Digital Speech Processing
- ▶ CKCS 903 Computer Science: Fundamentals of Speech Recognition
- ▶ CKCS 904 Computer Science: Introduction to Eye Tracking
- ▶ CKCS 905 Computer Science: Contracting for Cloud Computing
- ▶ CEXEC 328 Mobile Application Developer: Android Application Development
- ▶ CEXEC 329 Mobile Application Developer: iPhone Application Development
- ▶ CXIT 630 Computer and Network Support: Network Administration for Linux

## ENTERING FOREIGN MARKETS

This course series is designed for students who wish to build on their existing cultural knowledge, language capabilities, or Canadian business experience in order to develop skills in entering foreign markets. Completion of this series will provide students with the tools to analyze foreign market opportunities and select appropriate entry mode strategies. Students will also develop the knowledge and skills required to design and implement foreign market strategies, organize overseas market operations, and develop strategies for multinational corporations. This series will also equip students with a solid understanding of the role of the Canadian government in the regulation of international trade and the competencies required to establish an export-import operation.

For information about the Certificate in Global Management Studies, please visit [www.ryerson.ca/ce](http://www.ryerson.ca/ce) or see page 77.

The three courses must be completed with a GPA of 1.67 or higher within three years of registration in the first course.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Required Courses

- ▶ CGMS 522 Global Management: International Marketing
- ▶ CGMS 723 Global Management: International Trade
- ▶ CGMS 724 Global Management: Management of International Enterprise

## ENTREPRENEURSHIP AND MULTICULTURALISM

The four courses required for this course series will provide an essential body of knowledge needed to start and/or grow a business venture within a multicultural context.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Required Courses

- ▶ CENT 526 Entrepreneurship: Entrepreneurial Behaviour and Strategy
- ▶ CMKT 310 Marketing: Marketing Plans
- ▶ CZEN 300 Entrepreneurship: Multicultural Opportunities
- ▶ CZEN 500 Entrepreneurship: Multicultural Venture Startups

The four courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Entrepreneurship and Multiculturalism certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the four courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the four courses you have completed. Upon verification, you will receive your professional development award.

For information about the Certificate in Entrepreneurship and Multiculturalism, please visit [www.ryerson.ca/ce](http://www.ryerson.ca/ce) or see page 55.

# GATEWAY FOR INTERNATIONAL PROFESSIONALS

## International Accounting and Finance Professionals (IAFP)

The IAFP program is designed to supplement the prior experience and learning of international accounting and finance professionals with the skills and knowledge required in a Canadian context.

The IAFP program prepares you to compete for jobs at levels appropriate to your previous work experience and skills. The accounting stream is designed to accelerate your path towards membership/certification in professional accounting bodies.

The IAFP program offers an innovative system of supports:

- ▶ individualized pre-screening and prior learning and competency assessment
- ▶ courses specific to accounting and financial services practice in Ontario
- ▶ profession and sector-specific communication and soft skills training
- ▶ expanded employer networking opportunities
- ▶ work placements (if required and available)
- ▶ mentoring

For further information and admission requirements, visit the IAFP website at [www.ryerson.ca/ce/iafp](http://www.ryerson.ca/ce/iafp).

## Internationally Educated Dietitians Pre-registration Program (IDPP)

The IDPP is a unique learning opportunity designed to give internationally educated nutrition and food professionals information, advice, referral to career opportunities, language testing and training, and, for those who are qualified, preparation for registration with the College of Dietitians of Ontario (CDO) and Dietitians of Canada (DC).

The IDPP features two main services:

- ▶ pre-registration program designed to help internationally educated dietitians prepare for registration and practice in Ontario
- ▶ assessment and counselling for internationally educated nutrition and food professionals who are exploring their education and work options

For further information and admission requirements, visit the IDPP website at [www.ryerson.ca/ce/idpp](http://www.ryerson.ca/ce/idpp).

## Middle-Level Managers (MLM) with Technical Background Program

The MLM with technical background program provides training in project management, job search support, and preparation to write the PMP exam. This program is specifically designed for internationally educated professionals with technical background such as engineers, IT professionals, scientists, environmentalists, and other technical professionals.

For further information and admission requirements, visit the MLM website at [www.ryerson.ca/ce/mlm](http://www.ryerson.ca/ce/mlm).

## The International Midwifery Pre-registration Program (IMPP)

The International Midwifery Pre-registration Program (IMPP) is a nine-month bridging program. It is your route to registration and practice in Ontario. It provides internationally educated midwives with the following:

- ▶ knowledge and skills assessment and enhancement
- ▶ orientation to midwifery practice in Ontario
- ▶ a three-month clinical placement with competency assessment
- ▶ online components
- ▶ six-month fast-track option
- ▶ preparation for the National Midwifery Registration Exam

The IMPP is intended for experienced international midwives, fluent in English, who have practiced midwifery within the past five years. It is not a re-education or re-training program. There are limited places available in the IMPP, and the admission process is competitive.

If you are an internationally educated midwife, you must take this bridging program in order to be registered to practice in Ontario. For more information and to find out more about your eligibility for the program, visit the IMPP website at [www.ryerson.ca/ce/midwife](http://www.ryerson.ca/ce/midwife).

## Internationally Educated Social Work Professionals (IESW) Program

Are you an internationally educated social work professional who wants to gain a practical and contextual understanding of Ontario's social services sector?

If so, consider registering in courses within the Internationally Educated Social Work Professionals (IESW) Program at The G. Raymond Chang School of Continuing Education.

This innovative bridging program is offered nowhere else in Canada. It provides training, mentorship, support, and supervised work placements for qualified social work professionals who were educated outside of Canada.

In just one year, you can achieve the following:

- ▶ increase your understanding of how social work is practiced in Ontario and the rest of Canada
- ▶ gain social service experience and orientation to the Canadian workplace
- ▶ expand your network of social service employers and organizations

The IESW Program has been designed specifically for internationally educated social work professionals who want to work in the social services sector in Ontario. For further information and admission requirements, visit the IESW website at [www.ryerson.ca/ce/socialwork](http://www.ryerson.ca/ce/socialwork).

## Workplace Communication in Canada (WCC)

The Workplace Communication in Canada (WCC) program's goal is to maximize the employability (and leverage preparedness for professional bridging programs) of internationally educated professionals by implementing the following:

- ▶ a comprehensive assessment of strengths and individual needs (Communication Skills Assessment)
- ▶ a workplace-focused curriculum (materials developed in partnership with employers and profession-specific bridging programs)
- ▶ an experiential curriculum (using role plays, simulations with actors, workplace scenarios, debate clubs, and group work)

The WCC Communication Skills Assessment ensures entry to the most appropriate level of communication and language program. In order to make this program sector/profession relevant, each of the learning tools and modules will incorporate profession-related materials and experiences.

For further information and admission requirements, visit the WCC website at [www.ryerson.ca/ce/wcc](http://www.ryerson.ca/ce/wcc).

## HEALTH STUDIES

For information about the Certificate in Health Studies, please visit [www.ryerson.ca/ce](http://www.ryerson.ca/ce) or see page 83.

### Health Ethics

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

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

#### Required Courses (select three)

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

- ▶ CPHL 302 Philosophy: Ethics and Health Care
- ▶ CPHL 334 Philosophy: Ethics in Professional Life
- ▶ CPHL 444 Philosophy: Ethics in Health Services Management
- ▶ CPHL 509 Philosophy: Bioethics
- ▶ CPHL 602 Philosophy: Health Care and Distributive Justice

The three courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Health Studies certificate or to an applicable health-related certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the three courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the three courses you have completed. Upon verification, you will receive your professional development award.

### Health Informatics

Students will be introduced to the basic concepts of health informatics from both the information technology and health systems perspectives.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

#### Required Courses (select three)

- ▶ CHIT 100 Health Informatics: Introduction to Health Informatics
- ▶ CHIT 201 Health Informatics: Healthcare Interoperability
- ▶ CHIT 300 Health Informatics: Introduction to Healthcare Human Computer Interface
- ▶ CZLW 110 Law: Health Information Access and Privacy

The three courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Health Studies certificate or to an applicable health-related certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the three courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the three courses you have completed. Upon verification, you will receive your professional development award.

## Health Services Management

Students will be introduced to the basic principles of health services management.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Required Courses

- ▶ CHSM 305 Health Services Management: The Management Cycle
- ▶ CHSM 306 Health Services Management: Management Leadership and Decision-Making
- ▶ CHSM 437 Health Services Management: Human Resources Management in Healthcare

The three courses must be completed, with a GPA of 1.67 or higher, within three years of your registration in the first course. The courses may be applied to the Health Studies certificate or to an applicable health-related certificate (students intending to complete a certificate must register in the certificate before completion of the professional development award). Once you have successfully completed the three courses, email [ce@ryerson.ca](mailto:ce@ryerson.ca) with your name, student number, and the three courses you have completed. Upon verification, you will receive your professional development award.

## THE HUMAN BODY

Mature working and non-working adults are increasingly aware of their need to learn, based on scientific evidence, how to transform their habits and lifestyles to meet the needs of their age and health situations when it comes to the human body. This course series provides the opportunity to educate adults about the human body and impacts to it, including the biology-based and chemistry-based science of food.

Each course in this series will explore the science underlying the human body and how to use the science to make informed life choices.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

For more information, please visit [www.ryerson.ca/ce](http://www.ryerson.ca/ce) or contact Andrew McWilliams, Academic Coordinator, Biology and Chemistry, at [amcwilli@ryerson.ca](mailto:amcwilli@ryerson.ca).

### Required Courses

- ▶ CBLG 10 A/B Biology: Anatomy and Physiology
- ▶ CKBG 100 Biology: Hlth Tools to Mng the Human Body
- ▶ CKBG 110 Biology: The Science of Food Foundations
- ▶ CKBG 115 Biology: The Science of Supplements

# 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.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

The series will consist of four courses:

## Required Courses

Three courses are required and are all available online via distance education:

- ▶ CINT 913 Interdisciplinary Studies: Issues of Migration
- ▶ CINT 914 Interdisciplinary Studies: Settlement Experiences
- ▶ CINT 915 Interdisciplinary Studies: Responses to Migration

## Electives (select one)

An additional elective course can be selected from the following:

- ▶ CECN 640 Economics: The Economics of Immigration
- ▶ CGEO 691 Geography: Canadian Immigration: Patterns and Place
- ▶ CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- ▶ CMHR 600 Human Resources: Diversity and Inclusion in the Workplace
- ▶ CMHR 700 Human Resources: Cross-Cultural Dimensions of Organizational Behaviour
- ▶ CPSY 620 Psychology: Psychology of Immigration
- ▶ CPSY 941 Psychology: Cross Cultural Psychology
- ▶ CSOC 474 Sociology: Immigration, Minorities and Citizenship

For more information about the Course Series in Immigration and Settlement Studies, please view our flyer or contact June Pollard, Academic Coordinator, Interdisciplinary Studies, at [jpollard@ryerson.ca](mailto:jpollard@ryerson.ca).

# INFORMATION TECHNOLOGY STUDIES

## .NET Application Developer

.NET is a software development Framework developed by Microsoft that runs primarily on Microsoft Windows. It includes a large library of classes and provides language interoperability across several programming languages such as C#, Visual Basic, and C++. In this course series, learners gain hands-on experience developing a wide range of applications by using tools and components within the .NET framework and Visual Studio. This course series may assist you with your preparation for various Microsoft .NET certifications.

This course series is appropriate for learners with a programming background. For further information about this course series, please visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS).

For general admission information, contact [ce@ryerson.ca](mailto:ce@ryerson.ca) or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at 416.979.5000, ext. 7907.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

## Recommended Sequence

Students are advised to take the Required Courses in the following sequence:

CXEC 300; CXEC 309; CXEC 304; CXEC 305.

## Required Courses

- ▶ CXEC 300 .NET Application Developer: Programming With C# and the .NET Framework
- ▶ CXEC 304 .NET Application Developer: WCF in the .NET Framework
- ▶ CXEC 305 .NET Application Developer: Accessing Data with MS.NET
- ▶ CXEC 309 .NET Application Developer: Developing Web Applications with ASP .NET

## Supplementary Courses

- ▶ CXEC 329 Mobile Application Developer: iPhone Application Development
- ▶ CXEC 340 Enterprise Content Management: Microsoft SharePoint Web Development

## Note to course series students

CXEC 302 no longer offered; the number of required courses remains as four.

## Cisco Certified Network Associate (CCNA) Routing and Switching

This two-course series provides learners with the fundamental skills and knowledge of Cisco technologies. The series may assist with your preparation for the Cisco Certified Network Associate (CCNA) Routing and Switching exam.

This course series is appropriate for learners with a network administration background. For further information about this course series, please visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS).

For general admission information, contact [ce@ryerson.ca](mailto:ce@ryerson.ca) or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at 416.979.5000, ext. 7907.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Required Courses

- ▶ CXNA 101 Cisco Certified Network Associate (CCNA): Networking Basics for Cisco
- ▶ CXNA 102 Cisco Certified Network Associate (CCNA): Interconnecting Cisco Network Devices (ICND)

## Computer and Network Support

Networking-oriented courses are designed to provide the material needed to become proficient with concepts and practices related to today's networking technologies. This course series provides learners with hands-on experience with networking hardware and software, Microsoft and Linux network administration, and system security practices.

Entry into this course series is appropriate for learners who are familiar with the Windows environment and have proficient file management and keyboarding skills as well as experience with an office suite application. For further information about this course series, please visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS).

For general admission information, contact [ce@ryerson.ca](mailto:ce@ryerson.ca) or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at 416.979.5000, ext. 7907.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Recommended Sequence

Students are advised to take the Required Courses in the following sequence:

CXIT 401; CXIT 421; CXIT 620 or CXIT 630.

### Required Courses

- ▶ CXIT 401 Computer and Network Support: A+
- ▶ CXIT 421 Computer and Network Support: Network Administration for Microsoft
- ▶ CXIT 620 Computer and Network Support: Windows Active Directory Planning
- ▶ CXIT 630 Computer and Network Support: Network Administration for Linux

### Supplementary Courses

CXCC 104 Computer and Network Support: Certified Information Systems Security Professional (CISSP)

## Java EE Solution Developer

Java EE (Enterprise Edition) is the current enterprise level industry standard for object-oriented cross platform distributed application development. This course series provides learners with hands-on experience with tools for web component solution development within the Java EE development architecture including servlets, JSP (JavaServer Pages), EJB (Enterprise JavaBeans), Struts, Spring Framework, JSF (JavaServer Faces), and Hibernate. This course series may assist you with your preparation for various Oracle (Sun) certifications.

This course series is appropriate for learners with a programming background. For further information about this course series, please visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS).

For general admission information, contact [ce@ryerson.ca](mailto:ce@ryerson.ca) or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at 416.979.5000, ext. 7907.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Recommended Sequence

Students are advised to take the Required Courses in the following sequence:

CXEC 320; CXEC 312; CXEC 313; CXEC 322 or CXEC 324.

### Required Courses

To be eligible to be awarded the Professional Development Award, students select one of CXEC 322 or CXEC 324 for their fourth course.

- ▶ CXEC 312 Java EE Solution Developer: Developing Java EE Compliant Applications (Enterprise JavaBeans)
- ▶ CXEC 313 Java EE Solution Developer: Web Component Development with Java Technology (Servlets and JSP)
- ▶ CXEC 320 Java EE Solution Developer: Java Advanced
- ▶ CXEC 322 Java EE Solution Developer: Developing Advanced Web Applications Using Java
- ▶ CXEC 324 Java EE Solution Developer: Spring and Hibernate Java Apps

### Supplementary Courses

- ▶ CXEC 328 Mobile Application Developer: Android Application Development

## Mobile Application Developer

This two-course series provides learners with hands-on experience developing applications for Android and the iPhone, the two most popular and prominent mobile development platforms. Students will learn the skills and knowledge required to develop their own mobile applications for each device.

This course series is appropriate for learners with a programming background in Java programming (for CXEC 328), and in object-oriented programming (OOP) (for CXEC 329). For further information about this course series, please visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS).

For general admission information, contact [ce@ryerson.ca](mailto:ce@ryerson.ca) or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at 416.979.5000, ext. 7907.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Recommended Prerequisites

Students are strongly recommended to complete CXEC 300 or CXEC 320 (for CXEC 329) or CXEC 320 (for CXEC 328), or have equivalent OOP experience or advanced Java programming experience, prior to taking the courses in this series.

To self-assess for equivalent OOP experience, visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS) and view the detailed course description for either CXEC 300 or CXEC 320.

### Required Courses

- ▶ CXEC 328 Mobile Application Developer: Android Application Development
- ▶ CXEC 329 Mobile Application Developer: iPhone Application Development

## Website Design and Development

This course series provides learners with the foundation to design and develop creative websites by providing the skills required to control the way a website is displayed and to incorporate dynamic functionality. A wide range of design and development tools are explored which allows learners to gain a rich hands-on experience.

Entry into this course series is appropriate for learners who are familiar with the Windows environment and have proficient file management and keyboarding skills, as well as experience with a MS Office Suite application.

For further information about this course series, please visit [www.ryerson.ca/ce/ITS](http://www.ryerson.ca/ce/ITS).

For general admission information, contact [ce@ryerson.ca](mailto:ce@ryerson.ca) or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at 416.979.5000, ext. 7907.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Recommended Sequence

Students are advised to take the Required Courses in the following sequence:

CXCP 663; CXCP 674; CXCP 675; CXCP 680; CXCP 660.

### Required Courses

- ▶ CXCP 660 Website Design and Development: Advanced HTML 5 Development
- ▶ CXCP 663 Website Design and Development: HTML and Cascading Style Sheets
- ▶ CXCP 674 Website Design and Development: Introduction to JavaScript
- ▶ CXCP 675 Website Design and Development: Advanced JavaScript
- ▶ CXCP 680 Website Design and Development: Dreamweaver

### Supplementary Courses

- ▶ CXCP 184 Website Design and Development: Adobe Photoshop
- ▶ CXCP 685 Website Design and Development: PHP/My SQL Web Design Fundamentals
- ▶ CXCP 695 Website Design and Development: eCommerce Design with PHP/MySQL
- ▶ CXCP 705 Website Design and Development: Ajax with jQuery Introduction

### Note to course series students

This course series has been revised effective July 1, 2013. Students who began the program prior to July 1, 2013, must complete the program requirements in effect at the time they started.

### Required Courses

CXCP 185, CXCP 673, CXCP 679, and CXCP 700 deleted.  
CXCP 660, CXCP 674, CXCP 675, and CXCP 680 added.

## POLITICAL MANAGEMENT

This course series is designed for individuals seeking to enhance their understanding of the opportunities and challenges in managing political offices, ranging from election activities to legislative duties and executive responsibilities. With the increasing appreciation of the importance of political management in ensuring that democratic institutions work effectively, graduates of the course series will be equipped with the knowledge required to manage core functions in political operations. Students will benefit from the flexibility of the 19.5-hour course model.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

### Recommended Sequence

Students are advised to take COPM 701 before taking the remaining courses.

### Required Courses

- ▶ COPM 701 Politics and Public Administration: Basic Electoral Strategies
- ▶ COPM 702 Politics and Public Administration: Mapping a Campaign: Developing an Effective Plan
- ▶ COPM 703 Politics and Public Administration: The Art of Persuasion
- ▶ COPM 704 Politics and Public Administration: Fundraising
- ▶ COPM 705 Politics and Public Administration: How Legislatures Really Work
- ▶ COPM 706 Politics and Public Administration: Working for a Minister

## PROGRAMS FOR 50+

### Caring Clown

This program is for older adults who want to make a difference by bringing joy, laughter, and fun into the lives of long-term care residents. Through several courses, students are trained in clowning techniques and achieve an understanding of aging and the dementia process. In addition, working closely with long-term care homes, a practicum provides an opportunity for the Caring Clown to gain experience.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

For general information, contact [mena.carravetta@ryerson.ca](mailto:mena.carravetta@ryerson.ca) or 416.979.5103.

For further information about this course series, please visit [www.ryerson.ca/ce/caringclown](http://www.ryerson.ca/ce/caringclown).

### Required Courses

- ▶ CSAC 109 ACT II STUDIO: Clown and Comedy: Introduction to Clown
- ▶ CSCC 910 Caring Clown Basics
- ▶ CSCC 911 Caring Clown Practicum

### Supplementary Workshops

These courses give you the opportunity to further develop your learning and professional skills; however, they are not required for completion of the Caring Clown Professional Development Award.

- ▶ CSCC 200 Caring Clown: Strengthen Your Clown Character

# RETAIL MANAGEMENT

## 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.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

For more information, please see page 134, visit [www.ryerson.ca/ce/retail](http://www.ryerson.ca/ce/retail), or contact Sean Sedlezky, Academic Coordinator, Retail Management.

### Required Courses

- ▶ CRMG 400 Retail Management: Buying Process I
- ▶ CRMG 452 Retail Management: Visual Merchandising and Space Planning
- ▶ CRMG 909 Retail Management: Advanced Buying Process II

## Retail Operations

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.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

For more information, please see page 134, visit [www.ryerson.ca/ce/retail](http://www.ryerson.ca/ce/retail), or contact Sean Sedlezky, Academic Coordinator, Retail Management.

### Required Courses

- ▶ CRMG 301 Retail Management: Retail Operations Management
- ▶ CRMG 303 Retail Management: Service Quality Management
- ▶ CRMG 925 Retail Management: Leading in Retail Service Organizations

### Note to course series students

CRMG 900 and CRMG 901 deleted; CRMG 303 and CRMG 925 added.

The number of required courses remains at three.

# SPANNING THE GAPS – ACCESS TO POST-SECONDARY EDUCATION

## Bridges to Ryerson

Bridges to Ryerson is a one-year, part-time transitional program for mature students who have the motivation, potential, and stability required to be successful at post-secondary education, but who have foundational educational gaps and lack the formal admissions requirements. Our students may have had past negative educational experiences, not completed high school, or been away from education for several years. Students complete university-level Chang School courses, subject to the rigour of any other university course, but in a supportive environment that addresses foundational educational skills required to be successful in future post-secondary study. Students attend two evenings a week for a year, and are given targeted academic and non-academic supports and financial aid as needed. If they successfully complete the program requirements, they are eligible to apply for admission to selected programs within the university.

For further information, information session dates, and admission requirements, visit the Programs page on the Spanning the Gaps website at [www.ryerson.ca/ce/access](http://www.ryerson.ca/ce/access).

## Transition to Certificates

The Transition to Certificates program provides an alternative entry pathway to courses towards the many certificates offered at The G. Raymond Chang School of Continuing Education. Transition to Certificates is a program that widens access to post-secondary education; the program prepares individuals for university level study by teaching the required skills for academic success with an emphasis on the student becoming an independent learner.

# URBAN AGRICULTURE

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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. The series will consist of four courses and students who complete them will receive official acknowledgement from the University of having achieved completion.

## Required Courses (all available via distance education)

- ▶ CVFN 410 Food Security: Understanding Urban Agriculture
- ▶ CVFN 411 Food Security: Dimensions of Urban Agriculture
- ▶ CVFN 412 Food Security: Urban Agriculture Types
- ▶ CVFN 413 Food Security: Urban Agriculture Policy-Making

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.

Those who successfully complete this course series are eligible to earn a Professional Development Award from Ryerson University.

For more information about the Course Series in Urban Agriculture, please visit [www.ryerson.ca/ce/ua](http://www.ryerson.ca/ce/ua).

Note: These courses have been developed in partnership with ETC-Urban Agriculture (ETC-UA) and the international network of Resource Centres on Urban Agriculture and Food Security (RUAf).