2011-2012 Programs

The G. Raymond Chang School of Continuing Education offers an extensive range of career-oriented programs in various areas of interest: Business, Management, and Economics; Communication and Media; Community Health and Well-being; Computer and Information Technology; Design; Gateway for International Professionals; Languages; Law and Government; Liberal Arts; Programs for 50+; and Science and Engineering.

Business, Management, and Economics
- Accounting – Finance
- Business Analysis
- Business Communication
- Business Management
- Business Systems Analysis
- Design Management
- Disaster and Emergency Management
- eBusiness
- Economics
- Economics and Finance
- Financial Management in Canada
- Financial Planning
- Fundraising Management
- Global Management
- Health Informatics
- Human Resources Management
- Industrial Organization and Policy
- Introductory International Economics
- Labor Practices Management
- Microeconomic Theory and Policy
- Nonprofit and Volunteer Sector Management
- Occupational Leadership
- Program and Portfolio Management
- Project Management
- Public Administration and Governance – Level 1 (PAGP)
- Public Administration and Governance – Level 2 (PAGP)
- Public Administration and Leadership
- Quantitative Economics
- Retail Buying
- Retail Management
- Retail Operations
- Strategic Marketing
- Sustainability

Communication and Media
- Audio Production Fundamentals
- Business Communication
- Community Engagement, Leadership, and Development
- Film Studies
- Graphic Communications
- Image Arts (Film Studies, New Media, or Photography Studies)
- Magazine and Web Publishing

Design
- Architectural Preservation and Conservation
- Architecture
- Architecture, Advanced
- Design for Arts and Entertainment
- Design Management
- Fashion Coordination and Styling
- Fundamentals of Interior Design
- Graphic Communications
- Image Arts (Film Studies, New Media, or Photography Studies)
- Landscape Design
- Lighting Design
- Program and Portfolio Management
- Project Management
- Sustainability

Gateway for International Professionals
- Canadian Social Work Practice
- Financial Management in Canada
- International Accounting and Finance Professionals (IAFP)
- International Midwifery Pre-registration Program (IMPP)
- Internationally Educated Dietitians Pre-registration Program (IDPP)
- Internationally Educated Dietitians Pre-registration Program (IDPP)
- Internationally Educated Engineers Qualification Bridging (IEQB) Program
- Workplace Communication in Canada (WCC)

Languages
- Business French and Translation
- English as a Second/Additional Language
- Proficiency in French
- Proficiency in Spanish

Law and Government
- Criminal Justice and Criminology
- Ethics
- Public Administration and Governance – Level 1 (PAGP)
- Public Administration and Governance – Level 2 (PAGP)
- Public Administration and Leadership
- Sustainability

Liberal Arts
- Criminal Justice and Criminology
- English Literature and Popular Culture
- Ethics
- Mental Health and Addictions
- Music: Global and Cultural Context
- Proficiency in French
- Proficiency in Spanish
- Psychology
- Public Administration and Governance – Level 1 (PAGP)
- Public Administration and Governance – Level 2 (PAGP)
- Public Administration and Leadership

Programs for 50+
- Caring Close

Science and Engineering
- Applied Digital Geography and GIS
- Applied Digital Geography and GIS, Advanced
- Architectural Preservation and Conservation
- Architecture
- Architecture, Advanced
- Chemical Analysis
- Computer Programming Applications
- Demographic Analysis
- Disaster and Emergency Management
- Environmental Engineering Science
- Facility Management
- International Educational Engineering Qualification (IEEQ) Program
- Laboratory Practices Management
- Landscape Design
- Project Management
- Sustainability

Part-Time Degree Programs
The part-time degree programs listed below will advance your professional qualifications within your present field or lay the groundwork for a new career.

- Business Management
- Business Technology Management
- Child and Youth Care
- Computer Science
- Disability Studies
- Early Childhood Education
- Health Information Management
- Health Services Management
- Midwifery
- Nursing
- Public Administration and Governance
- Social Work
- Retail Management

Some part-time degree courses are offered through The Chang School, however it is your responsibility to ensure that courses meet the stated requirements of your program. Full information about part-time degree programs can be found in the Ryerson University Part-Time Undergraduate Calendar at www.ryerson.ca/calendar.
Certificate Programs

Accounting – Finance

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

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.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight courses, with a cumulative grade point average of 2.00 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.

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/Directive 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
- CFIN 502 Finance: Personal Financial Planning
- CITM 102 Business Technology Management: Information Systems I
- CLAW 122 Law: Business Law
- CQMS 102 Quantitative Methods: Business Statistics I

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 Business Technology Management: Business Information Systems I
- CLAW 122 Law: Business Law
- CQMS 102 Quantitative Methods: Business Statistics I

Note to registered certificate program students

Required Courses
CACC 110 replaces CACC 100.
CACC 410 replaces CACC 406.

Electives
CACC 605 deleted.

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 Institutes and Associations.

Distance Education
The following courses are available in a distance education format.
- 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 Business Technology Management: Information Systems I
- CLAW 122 Law: Business Law
- CQMS 102 Quantitative Methods: Business Statistics I

Advanced Safety Management

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

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/obs.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Challenge Credits
Up to two courses within the program are available for challenge.

Certificate Requirements
The successful completion of the eight required courses, with a cumulative grade point average of 2.00 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.

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/Dir ects may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

Required Courses
- COHS 233 Occupational Health: Accident Theory and Analysis
- COHS 516 Occupational Health: Ergonomics
- COHS 523 Occupational Health: Safety Evaluation Techniques
- COHS 633 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.

- 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

Advancing the AODA: Principles and Practices of Accessibility

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.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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/Dir ects 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 506; CDST 501, CINT 902, or CSWP 921; CVDS 200; Electives - Group A (one selection); and Electives - Group B (two selections).

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
- CPHL 702 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
- CDST 727 Disability Studies: Leadership for Social Action
- 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
Applied Digital Geography and GIS

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

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.  

Academic Coordinator: Joe Aversa, 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.

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 information session. 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 2.00 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.

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/ Direcivities 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 Innovation
- 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).
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.

Academic Coordinator: Joe Aversa, certificates@gis@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.

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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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/Dirctions 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
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 101 Architecture:
Architectural Studio - Fundamental
CKAR 201 Architecture:
Architectural History: Prehistoric to Medieval
CKAR 208 Architecture:
Architectural History: Renaissance to Post-Modern
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 Curriculum Advising 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 information session. 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) is required for the certificate.

For further information about the program, please contact the Academic Coordinator, Yew-Thong Leong at 416.979.3000, ext. 6498, or attend a Program Open House.

Note for Current Students:
As of Fall 2009, the Ryerson University Senate has approved revisions to this certificate that result in a change of the number of required courses from 8 to 6, the addition of new courses, and the revision or deletion of existing courses. The Senate also approved that students currently enrolled in this certificate can, if appropriate, be allowed to move to the revised 6-course certificate curriculum.

To move to the revised certificate please complete The G. Raymond Chang School of Continuing Education Certificate Program Registration/ Transfer Form and submit the completed form to The Chang School (marked to the attention of Peter Monkhouse) in person, by fax, by email, or by mail. Once received, the Chang School will review the completed form and let you know which courses you must take to complete the certificate. Note: not all completed courses will apply to the revised certificate. View the letter sent to current certificate learners for more information.

If you have any questions, please contact The Chang School at 416.979.5035 or ce@ryerson.ca to discuss your specific situation.

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.

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
- CKAR 600 Architectural Preservation and Conservation: Architecture Preservation and Conservation Workshop
- 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 400 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 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. Juransc, 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.

Note to registered certificate program students This certificate has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Required Courses
- CKAR 610 replaces CKAR 602 and CKAR 603.
- CKAR 605 deleted.

Electives
- CKAR 205 deleted.
- CENT 500, CKAR 209, CKAR 500, CKAR 605, CKDA 602, CKDA 603, CKLA 109, CKLA 110, CKLA 400, CKLA 410, CKPM 213, and CKPM 214 added.

Distance Education
The following courses are available in a distance education format.

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 Institutes and Associations section.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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 416.979.5300, ext. 6498, or attend a Program Open House.

Note for Current Students:
As of Fall 2009, the Ryerson University Senate has approved revisions to this certificate that result in a change of the number of required courses from 8 to 6, the addition of new courses, and the revision or deletion of existing courses. The Senate also approved that students currently enrolled in this certificate can, if appropriate, be allowed to move to the revised 6 course certificate curriculum.

To move to the revised certificate please complete the G. Raymond Chang School of Continuing Education Certificate Program Registration/Transfer Form and submit the completed form to The Chang School (marked to the attention of Peter Monkhouse) in person, by fax, by email, or by mail. Once received, The Chang School will review the completed form and let you know which courses you must take to complete the certificate. Note: not all completed courses will apply to the revised certificate. View the letter sent to current certificate learners for more information.

If you have any questions, please contact The Chang School at 416.979.5305 or ce@ryerson.ca to discuss your specific situation.

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.

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

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<th>FALL 1</th>
<th>WINTER 1</th>
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<td>CKAR 310</td>
<td>CKAR 205</td>
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<tr>
<td>CKAR 310</td>
<td>CKAR 103</td>
<td>Electives (two)</td>
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Certificate in six terms

<table>
<thead>
<tr>
<th>FALL 1</th>
<th>WINTER 1</th>
<th>SPRING/SUMMER 1</th>
<th>FALL 2</th>
<th>SPRING/SUMMER 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CKAR 310</td>
<td>CKAR 205</td>
<td>Elective</td>
<td>CKAR 300</td>
<td>Elective</td>
</tr>
<tr>
<td>CKAR 205</td>
<td>Elective</td>
<td></td>
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</tbody>
</table>

Note: Pathways may be combined so that a student begins with one course per term then switches to two courses per term, or vice versa.

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 205 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

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

<table>
<thead>
<tr>
<th>FALL 1</th>
<th>WINTER 1</th>
<th>FALL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CKAR 300</td>
<td>CKAR 310</td>
<td>CKAR 205</td>
</tr>
<tr>
<td>CKAR 310</td>
<td>CKAR 103</td>
<td>Electives (two)</td>
</tr>
</tbody>
</table>

Certificate in six terms

<table>
<thead>
<tr>
<th>FALL 1</th>
<th>WINTER 1</th>
<th>SPRING/SUMMER 1</th>
<th>FALL 2</th>
<th>SPRING/SUMMER 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CKAR 310</td>
<td>CKAR 205</td>
<td>Elective</td>
<td>CKAR 300</td>
<td>Elective</td>
</tr>
<tr>
<td>CKAR 205</td>
<td>Elective</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Pathways may be combined so that a student begins with one course per term then switches to two courses per term, or vice versa.

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 205 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

Distance Education
The following courses are available in a distance education format.

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

Note to registered certificate program students
This certificate has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Required Courses
- CKAR 300 replaces CKAR 101 and CKAR 102.
- CKAR 310 replaces CKAR 104 and CKAR 105.
- Electives
  - CKAR 205 is now a Required Course.
  - CKAR 202, CKAR 206, CKAR 207, and CKAR 208 deleted.
  - CENT 500, CKAR 209, CKAR 500, CKAR 605, CKDA 602, CKDA 603, CKLA 109, CKLA 110, CKLA 400, CKLA 410, CKPM 202, CKPM 213, and CKPM 214 added.

For the most current information, see our website at www.ryerson.ca/ce.
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. Please see AATO under Professional Designations for more details.

Ontario Association for Applied Architectural Sciences
The Ontario Association for Applied Architectural Sciences (OAAS) recognizes successful completion of the Advanced Certificate in Architecture as fulfilling the academic component of the membership requirements. Please see OAAS under Professional Designations for more details.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses 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.

Note for Current Students:
As of Fall 2009, the Ryerson University Senate has approved revisions to this certificate that result in a change of the number of required courses from 8 to 6, the addition of new courses, and the revision or deletion of existing courses. The Senate also approved that students currently enrolled in this certificate can, if appropriate, be allowed to move to the revised 6 course certificate curriculum.

To move to the revised certificate please complete The G. Raymond Chang School of Continuing Education Certificate Program Registration/Transfer Form and submit the completed form to The Chang School (marked to the attention of Peter Monkhouse) in person, by fax, by email, or by mail. Once received, The Chang School will review the completed form and let you know which courses you must take to complete the certificate. Note: not all completed courses will apply to the revised certificate. View the letter sent to current certificate learners for more information.

If you have any questions, please contact The Chang School at 416.979.5035 or ce@ryerson.ca to discuss your specific situation.

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.

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/Deletions 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
- CCNM 432 Communication: Communication in the Engineering Professions
- CKAR 201 Architecture: Mechanical and Electrical Systems for Buildings
- CKAR 206 Architecture: Computer-Aided Architectural Drawing

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 603 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
This certificate has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Required Courses
CKAR 206 added.
Electives
CKAR 202, CKAR 205, CKAR 206, CKAR 207, and CKAR 208 deleted.
CENT 500, CKAR 209, CKAR 500, CKAR 603, CKDA 602, CKDA 603, CKLA 109, CKLA 110, CKLA 400, CKLA 410, CKPM 202, CKPM 213, and CKPM 214 added.

Distance Education
The following courses are available in a distance education format.
- 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
Audio Production Fundamentals

The Certificate in Audio Production Fundamentals will not be accepting any new registrants. The certificate has been discontinued effective Fall 2011. Students formally registered in the certificate prior to June 30, 2011, must complete the program requirements in effect at the time they registered. For further information, please contact the Communication and Design area at 416.979.5035.

Business Analysis

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight courses, with a cumulative grade point average of 2.00 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.

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/Redirects 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 Business 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 on Electives: For a research focus select CMKT 423, CQMS 442, CQMS 641, or one other.

Note to registered certificate program students

Required Courses
CGMS 200 replaces CMGT 200.

Electives
CITM 611, CQMS 621, and CQMS 641 deleted.
CGMS 422 replaces CQMS 402.
CMKT 500 replaces CMKT 423.

Distance Education
The following courses are available in a distance education format.
- CGMS 200 Global Management: Introduction to Global Management
- CITM 102 Business Technology Management: Business Information Systems I
- CQMS 102 Quantitative Methods: Business Statistics I
- CCMN 313 Communication: Organizational Problem Solving and Report Writing
- CHTH 102 Hospitality and Tourism: Service and Professionalism
- CMKT 500 Marketing: Marketing Research
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 CCMN 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 Curriculum Advising 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 information session. 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 2.00 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.

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 deadline (see Important Dates).

Required Courses

- CCMN 279 Communication: Introduction to Professional Communication
- CCMN 333 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 415 Communication: Promotional Communications
- CCMN 447 Communication: Communication and Law
- CCMN 448 Communication: Introduction to Visual Communication
- CDCM 300 Communication: Communicating in Virtual Environments
- CFRE 502 French: Advanced Business French I

Distance Education

The following courses are available in a distance education format.

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

Note to registered certificate program students

This certificate has been revised effective July 1, 2006. Students who formally registered in the certificate prior to July 1, 2006, must complete the program requirements in effect at the time they registered.

Required Courses

CMHR 405 deleted.
CCMN 443 added.

Electives

CCMN 443 is now a Required course.
CMHR 502 and CMHR 505 deleted.
CCMN 313, CCMN 415, CCMN 447, and CCMN 448 added.

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.

Admission Requirements

Certificate of Proficiency in French from Ryerson, or the completion of CFRE 515 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 Curriculum Advising 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 information session. 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 2.00 or higher, beginning with CFRE 315 or CFRE 510. 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 2.00 or higher, to obtain the certificate. A student granted an exemption from taking CFRE 315 or CFRE 510 will need to complete five higher-level courses.

Certificate of Proficiency in French from Ryerson, or the completion of CFRE 515 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 Curriculum Advising 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 information session. 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 2.00 or higher, beginning with CFRE 315 or CFRE 510. 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 2.00 or higher, to obtain the certificate. A student granted an exemption from taking CFRE 315 or CFRE 510 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.

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 Translation

Electives (select one)
- CFRE 515 French: Introduction to Business French
- CFRE 610 French: Advanced Grammar and Writing II
- CFRE 706 French: Cultural Evolution of the French Language

Note to registered certificate program students
Effective Fall 2011, the Certificate in Business French and Translation has been revised. Students who were formally registered in the certificate prior to July 1, 2011, must complete the requirements in effect at the time of their registration.

Required Courses
CFRE 515, CFRE 610, and CFRE 706 are now Electives.

Electives
Elective group added; students select one course.

Business Management

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

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight courses, with a cumulative grade point average of 2.00 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.

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

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.

Admission Requirements
A social work degree awarded outside of Canada and registration with the Ontario College of Social Workers and Social Service Workers (OCSW/SSW) 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.
Electives (select one)*
- CVSW 35A/B Canadian Social Work Practice (IESW): Field Practicum
- CVSW 56A/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 56A/B. Students who do not meet these qualifications must select CVSW 35A/B.

Note to registered certificate program students

Required Courses
CVSW 900 replaces CVSW 130 and CVSW 131.
CVSW 31A/B replaces CSWP 31A/B.
CVSW 918 replaces CSWP 918.
Electives
CVSW 35A/B replaces CSWP 35A/B.

Chemical Analysis

The Certificate in Chemical Analysis will not be accepting any new registrants. The certificate has been discontinued effective Fall 2010. Students formally registered in the certificate prior to June 30, 2010, must complete the program requirements in effect at the time they registered. For further information, please contact the Academic Coordinator, Dr. Anne Johnson, at 416.979.5000, ext. 6348.

For the most current information, see our website at www.ryerson.ca/ce.

Community Engagement, Leadership, and Development

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.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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 917 Canadian Social Work Practice (IESW): Special Topics I
- CVSW 918 Canadian Social Work Practice (IESW): Special Topics II

Leadership, and 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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 917 Canadian Social Work Practice (IESW): Special Topics I
- CVSW 918 Canadian Social Work Practice (IESW): Special Topics II

Leadership, and 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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 917 Canadian Social Work Practice (IESW): Special Topics I
- CVSW 918 Canadian Social Work Practice (IESW): Special Topics II

Leadership, and 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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).
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 dates, times, and location.

Recommended Sequence
Students are advised to take the courses in the following sequence: CVSW 200; two or three of CINF 913, CVSW 210, and/or CVSW 320; Electives (one or two selections); and CVSW 300.

Required Courses
Students may select two or three of CINF 913, CVSW 210, and/or CVSW 320.
- CINF 913 Nonprofit: Leading Through Change
- CVSW 200 Social Work: Community Engagement Foundations
- CVSW 210 Social Work: Community Engagement Practices
- CVSW 220 Social Work: Engaging Diverse Communities
- CVSW 302 Social Work: Community Engagement Capstone
- CVSW 300 Social Work: Community Development and Food Security
- CINF 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- CINF 904 Interdisciplinary Studies: Health Promotion and Community Development
- CINF 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CINF 907 Interdisciplinary Studies: Team Work for Community Services
- CINF 910 Interdisciplinary Studies: First Nations Issues
- CINF 912 Interdisciplinary Studies: Community Development: International Field Experience
- CINF 914 Interdisciplinary Studies: Settlement Experiences
- CINF 916 Interdisciplinary Studies: Introduction to Fundraising
- CINF 917 Interdisciplinary Studies: Urban Community Development
- CINF 920 Interdisciplinary Studies: Community Collaborations
- CKPM 202 Project Management: Fundamentals of Project Management
- CINT 127 907 Interdisciplinary Studies: Team Work for Community Services
- CINT 194 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

Electives (select one or two)
- CCRM 322 Criminal Justice and Criminology: Critical Legal Studies
- 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 515 Disability Studies: Strategies for Community Building
- CFNY 407 Food Security: Community Development and Food Security
- CINF 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- CINF 904 Interdisciplinary Studies: Health Promotion and Community Development
- CINF 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CINF 907 Interdisciplinary Studies: Team Work for Community Services
- CINF 914 Interdisciplinary Studies: Settlement Experiences
- CINF 916 Interdisciplinary Studies: Introduction to Fundraising
- CINF 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

Distance Education
The following courses are available in a distance education format:
- CINF 913 Nonprofit: Leading Through Change
- CVSW 200 Social Work: Community Engagement Foundations
- CVSW 210 Social Work: Community Engagement Practices
- CINF 912 Interdisciplinary Studies: Community Development: International Field Experience
- CINF 914 Interdisciplinary Studies: Settlement Experiences
- CINF 916 Interdisciplinary Studies: Introduction to Fundraising
- CINF 920 Interdisciplinary Studies: Community Collaborations
- CINF 900 Interdisciplinary Studies: Program Planning and Evaluation Strategies
- CINF 904 Interdisciplinary Studies: Health Promotion and Community Development
- CINF 905 Interdisciplinary Studies: Conflict Resolution in Community Services

Conflict Resolution in Community Services

Certificate Requirements
The certificate will require the successful completion of six courses, with a cumulative grade point average of 2.00 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, Prof. Raj Nagendra, at 416.979.5000, ext. 7058, or attend a Program Open House.

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 Curriculum Advising for complete details.

For the most current information, see our website at www.ryerson.ca/ce.
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.

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 305 Computer Science: Computer Science I
- CCPS 309 Computer Science: Computer Science II
- CCPS 306 Computer Science: Data Structures
- CCPS 301 Computer Science: Introduction to C and UNIX

Computational Methods, Required Courses
- CKCS 210 Computer Science: Introduction to MatLab
- CKCS 220 Computer Science: Introduction to SPSS

Database Technology Stream, Required Courses
- CCPS 310 Computer Science: Database Systems I
- CCPS 610 Computer Science: Database Systems II

Geographic Information Systems, Required Courses (select two)
- CGEO 122 Digital Geography: Customizing GIS Software: Applications Programming
- CGEO 126 Digital Geography: Web Mapping
- CGEO 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 390 Computer Science: Introduction to Operating Systems
- CCPS 706 Computer Science: Introduction to Data Communications

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

Note to registered certificate program students
This certificate has been revised effective July 1, 2010. Students who formally registered in the certificate prior to July 1, 2010, must complete the program requirements in effect at the time they registered. Core Program, Required Courses
- CKCS 200 added.

Four new streams added:
- Computational Methods
- Geographic Information Systems
- Landscape Design (Dynascape)
- Project Management (MS Project)
- 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.
- CODG 152 Digital Geography: Customizing GIS Software: Applications Programming
- CODG 156 Digital Geography: Web Mapping
- CODG 211 Digital Geography: Advanced GIS Programming

Criminal Justice and Criminology
For additional information about the program, please contact Tammy Landau, Academic Coordinator by email at tlandau@ryerson.ca (and CC: albrinsm@ryerson.ca) or attend an Open House session.

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 Curriculum Advising 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 information session. 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 2.00, 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.

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 Crime and Justice

With the permission of the academic coordinator, students may choose courses from each of the certificate streams, as identified below: Group A and Group B.

Specialist Stream – Group A
- 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

Generalist Stream – Group B
- CCRM 200 Criminal Justice and Criminology: Criminal Law
- CCRM 202 Criminal Justice and Criminology: Victims and the Criminal Process
- CCRM 402 Criminal Justice and Criminology: Criminal Justice and Social Inequality

Electives – Both Streams (select one)
- CCRM 304 Criminal Justice and Criminology: Youth Justice in Canada
- CGEO 381 Geography: GIS, Geographic Data and Mapping
- CPHL 249 Philosophy: Issues in the Philosophy of Punishment
- CPHL 612 Philosophy: Philosophy of Law
- CPSY 100 Psychology: Psychology and Law
- CPSY 602 Psychology: Developmental Psychopathology
- CSOC 502 Sociology: Violence and the Family

Note to registered certificate program students
Generalist Stream – Group B
CCRM 200 replaces CCRM 601.

Electives
CGEO 381 added.

Distance Education
The following courses are available in a distance education format.
- CPSY 300 Psychology: Psychology and Law
- CSOC 502 Sociology: Violence and the Family
Database and Knowledge Management

The Certificate in Database and Knowledge Management will not be accepting any new registrants. The certificate has been discontinued effective Fall 2010. Students formally registered in the certificate prior to June 30, 2010, must complete the program requirements in effect at the time they registered. For further information, please contact the Business area at 416.979.5035.

Database Technology

The Certificate in Database Technology will not be accepting any new registrants. The certificate has been discontinued effective Fall 2011. Students formally registered in the certificate prior to June 30, 2011, must complete the program requirements in effect at the time they registered. For further information, please contact the Engineering, Architecture, and Science area at 416.979.5035.

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 enrolments 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.

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 Curriculum Advising 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 information session. 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 2.00 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.

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 651 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:
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.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising for complete details.

Students who have no previous drawing experience must successfully complete Drawing Fundamentals (CDID 893).

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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of seven courses, with a cumulative grade point average of 2.00 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.

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)
- CDFP 391 Photography: History of Photography I
- CDMM 120 Film Studies: Film History
- CDMM 111 New Media: Image Theory I: Image Analysis
- CENG 101 English Literature: Laughter and Tears: Comic and Tragic Modes
- CENG 201 English Literature: The Hero's Journey: Myth and Archetype
- CTHF 403 Theatre: Landmarks in Canadian Theatre

Technology Electives (select one)
- CCMM 314 Communication: Professional Presentations
- CDPC 102 Fashion Coordination and Styling: Fashion Styling
- CDFP 385 Photography: Digital Tools I
- CDID 352 Lighting Design: Entertainment Lighting Design
- CDMP 114 Film Studies: Post-Production Sound

Note to registered certificate program students
CDNM 135, CDNM 214, CDNM 318, and CDNM 541 deleted.
CDMP 114 added.

Design Management

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 Curriculum Advising 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 information session. 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 2.00 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.

Requirements for Graduation
To graduate, you must successfully complete the
Disaster and Emergency Management

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

This certificate 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. Students will benefit from the online-delivery model allowing them flexibility.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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
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
• CDDM 106 Design Management: Design Research
• CDGA 631 Graphic Communications: Graphic Communications Processes
• CDID 150 Interior Design: Design Theory
• CENT 500 Entrepreneurship: New Venture Startup
• CITM 100 Business Technology Management: Business and 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.
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

Disaster and Emergency Management

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).

The Certificate in eBusiness will not be accepting any new registrants. The certificate has been discontinued effective Fall 2011. Students formally registered in the certificate prior to June 30, 2011, must complete the program requirements in effect at the time they registered. For further information, please contact the Business area at 416.979.5035.

Required Courses
Students may select only one of CKDM 100 or CKDM 110.
• CKDM 100 Disaster Emergency Management: Principles and Practice of Emergency Management
• CKDM 110 Disaster Emergency Management: Law of Disaster and Emergency Management

Distance Education
The following courses are available in a distance education format.
CKDM 100 Disaster Emergency Management: Principles and Practice of Emergency Management
CKDM 110 Disaster Emergency Management: Law of Disaster and Emergency Management

Ebusiness
ECONOMICS

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.

Academic Coordinator: Michael Jolly, mjolly@ryerson.ca.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 2.00 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.

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 312 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.

Note to registered certificate program students

Required Courses

CECN 129 replaces CECN 420.

Electives

CECN 321 and CECN 640 added.

ECONOMICS AND FINANCE

Distance Education

The following courses are available in a distance education format.

- 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

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

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
- CMTH 189

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 2.00 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.

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 100 Finance: Managerial Finance I
• CFIN 401 Finance: Managerial Finance II
• CFIN 501 Finance: Investment Analysis I

Electives (select two)
• CECN 301 Economics: Intermediate Macroeconomics I
• CECN 304 Economics: Intermediate Microeconomics I
• CECN 305 Economics: Money and Banking
• CECN 306 Economics: International Monetary Economics
• CECN 703 Economics: Public Finance I
• CECN 721 Economics: International Financial Markets
• CECN 803 Economics: Public Finance II
• CFIN 302 Finance: Personal Financial Planning
• CFIN 310 Finance: Entrepreneurial Finance
• CFIN 412 Finance: Risk Management and Insurance
• CFIN 601 Finance: Investment Analysis II
• CFIN 612 Finance: Retirement and Estate Planning
• CFIN 621 Finance: International Finance

Distance Education
The following courses are available in a distance education format.
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

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.

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 interview during which students’ fluency, listening comprehension, communication strategies, and language abilities will be assessed. The course admission/placement 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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

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
• COEN 460 and COEN 461, in combination with one single-term course from the First Level and one single-term course from the Second Level (or two single-term courses from the Second Level)
• the completion of any combination of courses totaling 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 2.00 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.

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 294 English as a Second/Additional Language: Writing Accurately and Clearly
• COEN 295 English as a Second/Additional Language: Critical Reading and Effective Writing

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 200 English as a Second/Additional Language: Language and Identity
• CLNG 250 English as a Second/Additional Language: Language and Public Life
• CLNG 300 English as a Second/Additional Language: Spoken and Written
• COEN 206 English as a Second/Additional Language: Writing for Professionals
• CLNG 250 English as a Second/Additional Language: Scientific and Technical Writing
• COEN 301 English as a Second/Additional Language: Advanced Grammar
• COEN 306 English as a Second/Additional Language: ESL/EAL: Oral Communication for Professionals
• CLNG 311 English as a Second/Additional Language: Integrated Skills I
• COEN 312 English as a Second/Additional Language: Integrated Skills II
• COEN 461 Academic and Professional Skills - ESL/EAL: Upper Advanced Intensive

Note to registered certificate program students
First Level
COEN 460 added.
COEN 311 deleted.

Second Level
COEN 204, COEN 311, COEN 312, CLNG 300, and COEN 461 added.

Distance Education
The following courses are available in a distance education format.
COEN 460 Academic and Professional Skills - ESL/EAL: Upper Intensive
CLNG 100 English as a Second/Additional Language: Language and Identity
CLNG 200 English as a Second/Additional Language: Language and Public Life
CLNG 300 English as a Second/Additional Language: Spoken and Written
COEN 295 English as a Second/Additional Language: Writing for Professionals
COEN 461 Academic and Professional Skills - ESL/EAL: Upper Advanced Intensive
English Literature and Popular Culture

This certificate in 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.

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 Curriculum Advising for complete details.

Program Open House
Students who have questions about the admission requirements and would like to know more about this certificate are invited to attend a program information session. 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 2.00 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.

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: The Nature of Narrative I
- CENG 208 English Literature: The Nature of Narrative II

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 501 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: Televsional Texts and Contexts

**Writing as a Cultural Act Stream (select a maximum of four)**
- CENG 200 English Literature: Writing as a Cultural Act
- CENG 321 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: The History of Rhetoric
- CENG 921 English Literature: Narrative in a Digital Age

Certification Requirements
- Dr. Vadim Bostan.

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 information session. Please see Open House for dates, times, and location.

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.

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).

Certification Requirements
- CENG 102 Environmental Engineering Science: Hydrogeology Soil and Ground Water Science
- CENG 120 Environmental Engineering Science: Environmental and Atmospheric Processes
- CENG 200 Environmental Engineering Science: Environmental Law and Practice
- CENG 210 Environmental Engineering Science: Environmental Analysis

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.

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 with 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 Curriculum Advising 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 416.979.5015, 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.
Electives (select two)
- 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 was revised in Fall 2010. Students who formally registered in the certificate prior to July 1, 2010, must complete the program requirements in effect at the time they registered. Some courses from the former certificate are no longer being offered; therefore students may be required to substitute new courses. For further information, please contact The Chang School at 416.979.5035 or ce@ryerson.ca.

Required Courses
CKES 210 added.
CKES 120 replaces CKES 100 and 101.

Electives
CKES 100, CKES 140, and CKES 150 deleted.
CKES 170, CKES 180, and CKES 190 added.
CKES 160 replaces CKES 123 and CKES 125.

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.

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/ephl.

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 Curriculum Advising for complete details.

Certificate Requirements
The successful completion of seven courses, with a cumulative grade point average of 2.00 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.

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
- CVPH 402 Environmental Public Health Practice
- CVPH 403 Environmental Public Health Social Marketing
- CVPH 404 Environmental Public Health Policy
- CVPH 405 Environmental Public Health Leadership
- CVPH 406 Environmental Public Health Current Topics in Public Health

Ethics
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.

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 Curriculum Advising 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 information session. 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 2.00 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.
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
- CPHL 200 Philosophy: Ethics Capstone Course
- CPHL 334 Philosophy: Ethics in Professional Life
- CPHL 301 Philosophy: Ancient and Modern Ethics

Electives – Group A (select one)
- Open to all streams
- CPHL 303 Philosophy: Ancient and Modern Ethics
- CPHL 444 Philosophy: Ethics in Health Services Management
- CPHL 507 Philosophy: Ethics and Disability
- CPHL 509 Philosophy: Bioethics

Human Rights and Administrative Justice Stream
- CPHL 400 Philosophy: Human Rights and Justice
- CPHL 449 Philosophy: Issues in the Philosophy of Punishment
- CPHL 612 Philosophy: Philosophy of Law

Media and Culture Stream
- CPHL 310 Philosophy: Media Ethics

Organizations and Professions Stream
- CPHL 307 Philosophy: Business Ethics
- CPHL 444 Philosophy: Ethics in Health Services Management
- CPHL 449 Philosophy: Issues in the Philosophy of Punishment
- CPHL 310 Philosophy: Media Ethics

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

Open to all Streams
- CPHL 303 Philosophy: Ancient and Modern Ethics
- CECN 502 Economics: Economics of Natural Resources
- CECN 510 Economics: Environmental Economics
- CHST 162 History: Science, Corporations and the Environment
- CPHL 500 Philosophy: Philosophy of the Natural Environment
- CPSY 518 Psychology: Environmental Psychology
- CPHL 502 Philosophy: Ethics and Health Care
- CPHL 444 Philosophy: Ethics in Health Services Management
- CPHL 507 Philosophy: Ethics and Disability
- CPHL 509 Philosophy: Bioethics
- CPSY 247 Psychology: Social Psychology
- CPSY 706 Psychology: Models of Personal Growth

Human Rights and Administrative Justice Stream
- CHST 301 History: Human Rights and the Canadian State
- CHST 721 History: African-American History
- CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CPHL 400 Philosophy: Human Rights and Justice
- CPOG 442 Politics and Public Administration: Human Rights and Global Politics
- CPPA 25 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

Media and Culture Stream
- CENG 413 English Literature: Colonial and Postcolonial Literatures
- CENG 520 English Literature: The Language of Persuasion
- CENG 621 English Literature: Reading Gender in a Global Context
- CHST 102 History: The History of Modern Propaganda
- CPHL 401 Philosophy: Philosophy and Mass Culture
- CPHL 530 Philosophy: Media Ethics
- CPHL 601 Philosophy: Modern and Contemporary Ethics
- CPHL 621 Philosophy: Beyond the Western Academic Tradition

Organizations and Professions Stream
- CCRM 322 Criminal Justice and Criminology: Ethics in Criminal Justice
- CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CODG 100 Digital Geography: Legal and Ethical Issues in GIS and Digital Data
- CPHL 507 Philosophy: Business Ethics
- CPHL 420 Philosophy: Human Rights and Justice
- CPHL 444 Philosophy: Ethics in Health Services Management
- CPHL 449 Philosophy: Issues in the Philosophy of Punishment
- CPHL 350 Philosophy: Media Ethics
- CPPA 125 Politics and Public Administration: Rights, Equity, and the State
- CPPA 301 Politics and Public Administration: Administrative Law

Note to registered certificate program students

Electives – Group A (Human Rights and Administrative Justice Stream)
- CPPA 125 replaces CPOG 315
- CPPA 301 replaces CPPA 629

Electives – Group B (Law Stream)
- CPPA 301 replaces CPPA 629

Facility Management

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 newly defined 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. 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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements

The successful completion of eight courses, with a cumulative grade point average of 2.00 or higher, is required for the certificate.

For the most current information, see our website at www.ryerson.ca/ce.

The Chang School Courses and Programs 2011-2012
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.

Requirements for Graduation
To graduate, you must successfully complete the published certicate 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 114 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
- CDFD 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
- CKFM 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
- COHR 718 Occupational Health: Systems Management I

Note to registered certificate program students

Required Courses
CDFM 102 replaces CIDE 511.
Electives – Group A
CCMN 412 deleted.
Electives – Group B
CDFM 501, CDFM 504, CKAR 500, and CKFM 202 added.
CDFM 202 deleted.
CGMS 200 replaces CMGT 200.
CGMS 401 replaces CMGT 401.

Distance Education
The following courses are available in a distance education format.

CITM 102 Business Technology Management: Business Information Systems I
CCMN 114 Communication: Short Management Reports
CACR 100 Accounting: Introductory Financial Accounting
CGMS 200 Global Management: Introduction to Global Management
CKFM 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
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.

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

Required Courses
- CVFS 401 Family Supports: Contemporary Family Issues
- CVFS 403 Family Supports: Family Support Theory and Practice
- CVFS 404 Family Supports: Program Planning and Evaluation

Electives – Group A (select two)
- CINT 420 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 407 Family Supports: Community Development
- CVFS 408 Family Supports: Practicum/Project
Electives – Group B (select one)
Students will choose one course from the following:
An additional course from Elective Group A above, excluding the two courses already completed.
One Interdisciplinary Studies (CINT) course.
One Nonprofit and Voluntary Sector Management (CINP) course.

With the submission of an approved Course Substitution/Directive Form signed by the academic coordinator, one course from Psychology, Sociology, Philosophy, or Politics and Public Administration could be substituted, or equivalents.

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
Effective Fall 2007, the Certificate in Family Supports has been revised. Students who are formally registered in the certificate prior to July 1, 2007, must complete the requirements in effect at the time of their registration.

Electives – Group A
CVFS 401 Family Supports: Contemporary Family Issues
CVFS 401 Family Supports: Family Supports Theory and Practice
CVFS 404 Family Supports: Program Planning and Evaluation
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 Curriculum Advising 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 information session. 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 2.00 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.

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 105 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 900 Entrepreneurship: New Venture Startup
- CFSN 703 Fashion: Visual Merchandising and Display
- CMKT 100 Marketing: Principles of Marketing

Note to registered certificate program students
Electives
CCMN 373 replaces CCMN 103 and CCMN 202.
CMKT 522 deleted.

Distance Education
The following courses are available in a distance education format.
CENT 900 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 those 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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

The Chang School Courses and Programs 2011-2012
Certificate Requirements

The successful completion of eight courses (five required courses and three electives (or 126 course hours), with a cumulative grade point average of 2.00 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.

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.

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 243 Film Studies: Film Technology II
- CDMP 249 Film Studies: Motion Picture Production II

Electives (select three courses or 126 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 210 Business of Film: Movie Marketing and Distribution
- CDMP 231 Film Studies: Short Filmmaking: On Location
- CDMP 232 Film Studies: Documentary Filmmaking in Cuba
- CDMP 240 Special Effects for Film
- CDMN 113 New Media: Visual Studies I
- CFPN 32A/B Film Studies: Directing Screen Performance
- CFPN 331 Film Studies: Cinematography and Lighting Design I

Note to registered certificate program students

This certificate has been revised effective July 1, 2010. Students who formally registered in the certificate prior to July 1, 2010, 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 ten to eight.

**Required Courses**

CDMP 329 deleted, thereby reducing the number of Required Courses to five.

**Electives**

CDMP 240 replaces CDMP 169.
CDMP 309, CDMP 409, and CFPN 33A/B deleted. CDMP 210 added. Elective group has been reduced to three courses (or 126 hours).

Financial Management in Canada

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.

**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.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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 information session. 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 course categories: Professional, Complimentary, and Workplace Culture and Professional Communication. Students must achieve a cumulative grade point average of 2.00 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.

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, as approved by the program manager and outlined in the student’s academic plan, according to the following three categories:

**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 424 Accounting: Intermediate Accounting I

For the most current information, see our website at www.ryerson.ca/ce.
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.fspc.org.

Academic Coordinator: Coleen Clark, 416.979.5000, ext. 7563.

Admission Requirements
Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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

For the most current information, see our website at www.ryerson.ca/ce.
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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

Requirements for Graduation
To graduate, you must successfully complete the published certificate curricula from the year 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 532 Accounting: Taxation for Managers and Financial Planners
- CFIN 501 Finance: Investment Analysis I
- 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

Note to registered certificate program students
The following changes thus reduce the number of courses for certificate requirement from seven to six.
CLAW 603 deleted.
CACC 522 replaces CACC 742 and CACC 842.

Distance Education
The following courses are available in a distance education format.
CFIN 502 Finance: Personal Financial Planning
CFIN 512 Finance: Risk Management and Insurance
CACC 522 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 Microeconomics
CFIN 300 Finance: Managerial Finance I
CFIN 401 Finance: Managerial Finance II
CLAW 122 Law: Business Law
CQMS 102 Quantitative Methods: Business Statistics I

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
- CFNN 404 Nutrition: Special Topics in Global Nutrition
- CFPN 400 Professional Practice: Reflective Practice
- CFPN 400 Research Methods: Independent Study
- CFNY 400 Food Security: Selected Topics in Food Security

Food Security

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

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 programs 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 2.00) is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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 401 Food Security: Food Security Concepts and Principles
- CFNY 404 Food Security: Food Policy and Programs for Food Security

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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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 401 Food Security: Food Security Concepts and Principles
- CFNY 404 Food Security: Food Policy and Programs for Food Security

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 information session. Please see Open House for dates, times, and location.
Course Delivery Schedule

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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.

Fundamentals of Interior Design

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). 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.

Students who have no previous experience in two- and three-dimensional creative design must successfully complete CDID 150 prior to registering in their first certificate course.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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 information session. 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 2.00 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.

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/Restrictions 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 102 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
- CIRH 101 Interior Design: History of Design I

Note to registered certificate students

Effective Fall 2010, the Certificate in Fundamentals of Interior Design has been revised. Students who were formally registered in the certificate prior to July 1, 2010, must complete the requirements in effect at the time of their registration. The following changes thus reduce the number of courses for certificate requirement from nine to seven.

Required Courses

CDID 150 added.
CDID 153, CDID 155, and CIRH 101 are now Electives.

Electives

CIRC 156 and CIRC 103 deleted.
CDID 157 added.

Liberal Studies Elective deleted.
Fundraising Management

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 nonprofit sector fundraising management
- learn to plan a campaign
- develop and implement a wide range of strategies and tactics for a successful and ethical operation of a campaign

This program has been developed to prepare aspiring fundraising professionals for career entry, to help managers in nonprofit 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.

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 Curriculum Advising 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 information session. 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 2.00 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.

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

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

Electives (select two)

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

Note to registered certificate program students

Electives

CVFM 202 is now a Required Course. CVFM 303 added. CVFM 301 deleted.

Distance Education

The following courses are available in a distance education format:

CINT 912 Nonprofit: Marketing for NonProfit Organizations
CINT 916 Interdisciplinary Studies: Introduction to Fundraising
CVFM 202 Fundraising Management: Donor Centered Fundraising
CVFM 302 Fundraising Management: Entrepreneurial Fundraising

Gerontology

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 gerontology.

The program draws faculty from many schools and departments within Ryerson, including Nursing, Social Work, Nutrition, Sociology, Politics and Public Administration, Psychology, Urban and Regional Planning, Early Childhood Education, and Family Studies. Participation from professionals in business, community services, and government is also an integral part of the Certificate in Gerontology.

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, subject sampling techniques, approaches to assessing the validity and reliability of measurement instruments, and the significance of research ethics applied within the field of gerontology

Admission Coordinator: Pria Nippak

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 Curriculum Advising 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 information session. 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 2.00 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.

For the most current information, see our website at www.ryerson.ca/ce.

The Chang School Courses and Programs 2011-2012
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 highly recommended that students working toward the Certificate in Gerontology start with CVGE 140 or CVGE 141, then proceed with their electives before taking CINT 901 or CVGE 205.

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

Electives (select two)
- CGER 258 Gerontology: Ability, Disability and Aging
- CINT 304 Interdisciplinary Studies: Health Promotion and Community Development
- CPSY 402 Psychology: Adult Development
- CPSY 502 Psychology: Death, Dying, and Bereavement
- CVGE 271 Gerontology: Consent, Capacity and Decision Making
- CVGE 297 Gerontology: Aging and Interpersonal Skills
- CVLT 302 Long Term Care: Principles of Long Term Care Service Delivery

Note to registered certificate program students
Electives
CFNF 401, COPS 608, CVGE 202, CVGE 272, CVGE 291, and CVGE 296 deleted.

Distance Education
The following courses are available in a distance education format.
- CINT 901 Interdisciplinary Studies: Gerontology: Critical Issues and Future Trends
- CVGE 140 Gerontology: Gerontology: Aging and the Individual
- CVGE 141 Gerontology: Aging and Society
- CVGE 205 Gerontology: Understanding Research
- CINT 904 Interdisciplinary Studies: Health Promotion and Community Development

Global Management Studies
Formerly: International Business

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 have also 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 Curriculum Advising 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 information session. 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 2.00 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.
Note to registered certificate program students

Effective Fall 2011, the Certificate in International Business has been revised to Global Management Studies. Students who were formally registered in the certificate prior to July 1, 2011, must complete the requirements in effect at the time of their registration.

The following changes thus reduce the number of courses in the certificate from nine to six.

Required Courses
- CLAW 724 is now an Elective.
- CCMN 443, CLAW 724, and CMHR 700 deleted.
- CGMS 724 added.

Electives
- CECN 503, CECN 606, CECN 607, CECN 609, CECN 707, CECN 721, CECN 802, CECN 821, CGMS 510, CGMS 724, CHST 500, CITM 350, CLAW 723, CPHL 307, and CPOL 607 deleted.
- CGMS 450, CGMS 601, CGMS 605, CGMS 691, CGMS 692, CGMS 695, CGMS 862, and CGMS 805 added.

Distance Education
The following courses are available in a distance education format:
- CECN 606: Economics
- CECN 607: International Monetary Economics
- CGMS 550: Global Management: Business-to-Business e-Commerce
- CITM 350: Business Technology Management: Concepts of e-Business
- CECN 104: Economics: Introductory Microeconomics
- CECN 204: Economics: Introductory Macroeconomics
- CMHR 405: Human Resources: Organizational Behaviour and Interpersonal Skills
- CMKT 100: Marketing: Principles of Marketing

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of 7 courses, with a cumulative grade point average of 2.00 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.

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 531: Graphic Communications: Estimating in the Graphic Arts
- 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 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.

Consideration is currently being given to the development of a second (advanced) certificate in Graphic Communications, where upon successful completion of both certificates, students will be considered for direct entry into third year of the Graphic Communications Management undergraduate degree program. Please indicate any interest to The Chang School at 416.979.5035 or ce@ryerson.ca.

Distance Education
The following courses are available in a distance education format:
- CGRA 116: Graphic Communications: Estimating in the Graphic Arts
- CMKT 100: Marketing: Principles of Marketing

Note to registered certificate program students

Effective Fall 2011, the Certificate in Graphic Communications has been revised. Students who were formally registered in the certificate prior to July 1, 2011, must complete the requirements in effect at the time of their registration.

The following changes thus reduce the number of courses in the certificate from ten to seven:

Required
- CGRA 116, CGRA 202, CGRA 203, CGRA 204, and CGRA 230 are now Electives.
- CMKT 100 deleted.

Electives
Elective group added; students select three courses.
- CGRA 320 added.
Health Informatics

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.

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 Curriculum Advising 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 information session. 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 2.00 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.

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/Exceptions 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 Information Technology: Intro to Health Informatics
- CHIT 201 Health Information Technology: Healthcare Interoperability
- CHIT 300 Health Information Technology: Intro to Healthcare Human Comp Interface
- CHSM 301 Health Services Management: The Healthcare Systems

Electives (select four)
- CHIM 300 Health Information Management: Managing Health Information Services
- 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

Specialized content to supplement students’ skills and knowledge, as well as support their individual professional goals.

Core Knowledge
Healthcare Professionals
- CITM 301
- CHIT 201
- CHIT 300
- CHSM 301

Elective Streams
Healthcare Professionals
- CHIT 201
- CHIT 300
- CHSM 301

IT Focus
- ITM 410
- CHIM 300
- CHSM 305

HR Focus
- CMHR 405
- CMHR 650
- CILW 100
- CILW 110

Policy Focus
- CMHR 405
- CHIM 404

Health System Focus
- CHIT 201
- CHIT 300
- CHSM 301

Distance Education
The following courses are available in a distance education format.
- CHSM 301 Health Services Management: The Healthcare Systems
- CHIM 300 Health Information Management: Managing Health Information Services
- 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
- CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills

For the most current information, see our website at www.ryerson.ca/ce.

The Chang School Courses and Programs 2011-2012
Health Services Management

This certificate program provides management education for the health services 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 for more information).

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of nine courses, with a cumulative grade point average of 2.00 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.

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/Exceptions may be requested. Also, you must apply for 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
- CVNU 321 Nursing: Financial Management

Electives (select three)
- CHSM 306 Health Services Management: Management Leadership and Decision-Making
- CHSM 417 Health Services Management: Research Methodology
- CVHS 450 Health Services Management: Institutional Structure
- CVLT 402 Long Term Care: Principles of Long Term Care Service Delivery
- CVLT 401 Long Term Care: Project Management in Long Term Care Administration
- CVLT 402 Long Term Care: Trends in Long Term Care Service Delivery

Note to registered certificate program students
Effective Fall 2006, the Certificate in Health Services Management has been revised. Students who were formally registered in the certificate prior to July 1, 2006, must complete the requirements in effect at the time of their registration. CHSM 315 and CHSM 316 deleted. CHSM 301 added.
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 for managing large databases including census statistics and financial data. Mainframe computers are a significant segment of the IBM product line. They are used for large scale simultaneous processing of very large information databases. Security of data warehousing and accuracy of processing are of paramount importance. They require sophisticated and specialized computer programming management and maintenance.

This certificate, developed in partnership with IBM Canada, will provide students with a thorough overview of the Mainframe environment, including hardware systems, workflows, end-user interfaces, programming, and data management. The curriculum is designed to provide graduates with a comprehensive education and practical knowledge in basic and advanced Mainframe computing focused on the z/OS environment.

For detailed certificate and program information, please visit www.ryerson.ca/ce/mainframe.

Admission Requirements
Eligible applicants must have completed an undergraduate degree in computer sciences or 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 Curriculum Advising for complete details.

Admission Process
Applicants must complete an application for pre-approval and be approved before registering for the first course. Applicants wishing to enroll in the first course must provide a resume listing employment experience, copies of credentials or academic standing, and certification documents. For further information on the program requirements please contact the Program Manager, Janet Shusterman, at 416.979.5000, ext. 7907.

Electives (select 5)
- CKCS 152 Mainframe Computing: Introduction to Mainframe Computing z/OS Environment
- CKCS 139 Mainframe Database Management Systems DB2
- CKCS 119 Mainframe Computing: Mainframe Database Management Systems COBOL
- CKCS 109 Mainframe Computing: Mainframe Online Programming CICS
- CKCS 108 Mainframe Computing: Mainframe Batch Programming JCL

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 information session. Please see Open House for dates, times, and location.

Certificate Registration
Students may be registered in only one certificate program at any one time. To allow maximum flexibility in creating 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.

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/Exceptions 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
- CMHR 524 Human Resources: Industrial Relations
- CMHR 600 Human Resources: Diversity and Equity 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 745 Human Resources: Compensation Management
- CMHR 849 Human Resources: Human Resources Planning

Note to registered certificate program students
This certificate has been revised effective July 1, 2007. Students who formally registered in the certificate prior to July 1, 2007, must complete the program requirements in effect at the time they registered. For further information, please contact the program assistant for Business at 416.979.5310.

Required Courses
- CMHR 505 and CMHR 522 deleted.
- Electives
  - CMHR 505, CMHR 522, CMHR 670, CMHR 671, CMHR 711, CMHR 749 and CMHR 849 added.

Distance Education
The following courses are available in a distance education format.
- CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- CMHR 710 Accounting: Introductory Financial Accounting
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 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
New Media Coordinator: Rhonda Abrams, rabrams@ryerson.ca
Photography Studies Coordinator: Dennis Miles, dmiles@ryerson.ca

Admission Requirements
OSSD with six Grade 12 U 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 Curriculum Advising 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 information session. 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 selecting 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.

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.

Required Courses
- CDNM 110 New Media: Image History I: Twentieth Century Art
- CDNM 111 New Media: Image Theory I: Image Analysis
- CDNM 113 New Media: Visual Studies I
- CDNM 210 New Media: Image History II: Contemporary Art

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 129 Film Studies: Motion Picture Production I
- CDMP 223 Film Studies: Film Technology II

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 320 Photography: Digital Tools I
- CDFP 321 Photography: Digital Tools II
- CDFP 385 Photography: Digital Tools II
- CDFP 386 Photography: Digital Tools II

Note to registered certificate program students
Required Courses
CDNM 211 and CDNM 213 deleted.
Elective Sets
CFSN 100 deleted (from Set A), therefore CDNM 115 and CDNM 210 (from Set B) have become required courses in all specializations. CDMP 129 replaces CDMP 12A/B.
CDMP 129 is a multi-term course.
Specialization in New Media
CDNM 112, CDNM 116, CDNM 212, CDNM 214, and CDNM 222 deleted.
CDNM 109, CDNM 209, CDNM 121, and CDNM 221 added.

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.

Academic Coordinator: Michael Jolly, mjolly@ryerson.ca

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight courses, with a cumulative grade point average of 2.00 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 selecting 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.
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 401 Economics: Industrial Organization
- CECN 504 Economics: Intermediate Microeconomics I

Electives (select three)
- CECN 230 Economics: Mathematics for Economics
- CECN 321 Economics: Introduction to Law and Economics
- CECN 429 Economics: Statistics for Economics II
- CECN 501 Economics: The Economics of Information
- CECN 614 Economics: An Introduction to Game Theory
- CECN 700 Economics: Intermediate Microeconomics II
- CMTH 189 Mathematics: Introduction to Mathematics for Economics

Note to registered certificate program students
Electives
CMTH 240 deleted.

Distance Education
The following courses are available in a distance education format.
- CECN 104 Economics: Introductory Microeconomics
- CECN 204 Economics: Introductory Macroeconomics

Information Systems Development
The Certificate in Information Systems Development will not be accepting any new registrants. The certificate has been discontinued effective Fall 2011. Students formally registered in the certificate prior to June 30, 2011, must complete the program requirements in effect at the time they registered. For further information, please contact the Business area at 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 information session. 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 2.00 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.

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 Business Technology Management: Business and Information Systems
- CITM 105 Business Technology Management: Systems Analysis and Design
- CITM 410 Business Technology Management: Business Process Design

Electives (select three)
- CITM 200 Business Technology Management: Fundamentals of Programming
- CITM 301 Business Technology Management: Introduction to IT Infrastructure
- CITM 350 Business Technology Management: Concepts of e-Business
- CITM 427 Business Technology Management: Info Tech, Ethics, and Society
- CITM 500 Business Technology Management: Logical Database Analysis and Design
- CITM 750 Business Technology Management: IT Project Management
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. For further information and admission requirements, visit www.ieeqb_program.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight courses, with a cumulative grade point average of 2.00 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.

Internally-Educated Engineers Qualification Bridging (IEEQB) Program

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.

Academic Coordinator: Michael Jolly, mjolly@ryerson.ca.

Economics

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: Intermediate Macroeconomics I
- CECN 207 Economics: Intermediate Microeconomics I
- CECN 220 Economics: Evolution of the Global Economy
- CECN 301 Economics: Economic Systems in the New World Economy
- CECN 302 Economics: Industrial Organization
- CECN 303 Economics: Economic Development
- CECN 306 Economics: International Monetary Economics
- CECN 309 Economics: European Economic Development
- CECN 307 Economics: Economics of International Trade
- CECN 308 Economics: The Economies of East Asia

Electives (select three)
- CECN 220 Economics: Evolution of the Global Economy
- CECN 310 Economics: Economic Systems in the New World Economy
- CECN 401 Economics: Industrial Organization
- CECN 403 Economics: Economic Development
- CECN 406 Economics: International Monetary Economics
- CECN 409 Economics: European Economic Development
- CECN 407 Economics: Economics of International Trade
- CECN 408 Economics: The Economies of East Asia

Distance Education
The following courses are available in a distance education format.
CECN 104 Economics: Introductory Microeconomics
CECN 204 Economics: Introductory Macroeconomics
CECN 206 Economics: International Monetary Economics

Note to registered certificate program students
This certificate has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Required Courses
CITM 410 replaces CITM 505.

Electives
CITM 350 replaces CITM 330.

Distance Education
The following courses are available in a distance education format.
CITM 100 Business Technology Management: Business and Information Systems
CITM 351 Business Technology Management: Systems Analysis and Design
CITM 350 Business Technology Management: Concepts of e-Business
CITM 750 Business Technology Management: IT Project Management
Laboratory Practices Management

This certificate program 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, recordkeeping, and technical writing) that laboratory work requires.

Admission Requirements

Applicants must complete an application for pre-approval form, be approved by the academic coordinator, and 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

A post-secondary diploma with a GPA of 2.0, or equivalent, subject to the approval of the academic coordinator

Three years of professional practice in a laboratory setting in a technical capacity, subject to the approval of the academic coordinator

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements

The successful completion of 12 21-hour courses, with a cumulative grade point average of 2.00 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.

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

Distance Education

The following courses are available in a distance education format.

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 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

Landscape Design

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

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. Ryerson University and Toronto Botanical Garden have recently developed an educational partnership. A number of courses are now delivered at the Toronto Botanical Garden at 777 Lawrence Avenue East.

Important note to students who formally registered in the Certificate in Landscape Design prior to July 1, 2009: If you registered in the Certificate in Landscape Design prior to July 1, 2009, you must complete the program requirements that were in effect at the time you registered, please see the Transition Plan. For more information on the changes to the certificate, please see the Landscape Design Changes Presentation.

For detailed certificate and program information, please visit www.ryerson.ca/ce/landscape.

See more courses and programs relating to Design or Science and Engineering.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Note: The Open House session 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 2.00 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.

Note for Current Students:

As of Fall 2009, the Ryerson University Senate has approved revisions to this certificate that result in a change of the number of required courses from 8 to 6, the addition of new courses, and the revision or deletion of existing courses. The Senate also approved that students currently enrolled in this certificate can, if appropriate, be allowed to move to the revised 6 course certificate curriculum.

To move to the revised certificate please complete The G. Raymond Chang School of Continuing Education Certificate Program Registration/Transfer Form and submit the completed form to The Chang School (marked to the attention of Peter Monkhouse) in person, by fax, by email, or by mail. Once received, The Chang School will review the completed form and let you know which courses you must take to complete the certificate. Note: not all completed courses will apply to the revised certificate. View the letter sent to current certificate learners for more information.

If you have any questions, please contact The Chang School at 416.979.5053 or ce@ryerson.ca to discuss your specific situation.

Certificate Registration

Students may be registered in only one certificate program at any one time. To allow maximum flexibility in creditling 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.

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 at a pace suitable to you.

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

Note to registered certificate program students

This certificate has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Distance Education

The following courses are available in a distance education format.
- **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
- **CKLA 440** Landscape Design: Digital Landscape Design

Course Delivery Schedule

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<tr>
<th>Course Code</th>
<th>Fall 2011</th>
<th>Winter 2012</th>
<th>Spring/Summer 2012</th>
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<td>Required</td>
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<tr>
<td>CKLA 450</td>
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</table>

C = Classroom
I = Distance: Internet
T = Toronto Botanical Garden (TBG)

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

Leadership and Management for Nurses

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

Nurses are on the front line in terms of professional and organizational transformation. Case or care management, program management, self-management, entrepreneurship, middle and upper management – all of these require nurses to understand the larger system, have a critical consciousness about their place in that system, and an ability to generate and participate in strategies that move the system in the desired direction.

The certificate program is designed for front-line nurses as well as those with functional management responsibilities. The electives that ensure more courses are available are relevant to multiple contexts. Interdisciplinary choices ensure the courses will increase the knowledge and skill nurses need to be effective in their environments.

This eight-course certificate includes four required Nursing courses and four elective courses. These are available at Ryerson through a combination of online and in-class learning, and at our regional access centres located throughout Southern Ontario. Registered nurses can access the certificate by completing the Application for Registration in a Continuing Education Certificate Program and by registering for the courses. Most of the courses in the certificate are a credit in the BScN program. Nurses who already have completed a baccalaureate degree may be eligible for advanced standing within the certificate.

For detailed certificate and program information, please visit www.ryerson.ca/ce/nursing.

Admission Requirements

Registered Nurse with a Certificate of Registration from the College of Nurses of Ontario or eligibility for same is required.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions: please refer to Curriculum Advising 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 information session. 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 2.00 or higher (i.e., a minimum grade of C or 63 percent), is required for the certificate.

Regional Access Centres
The expansion of regional access centres, along with flexible timing and delivery modes, is increasing the nursing community’s access to Ryerson nursing education. Some of the courses in this certificate are now available at selected agencies in the community. For more information, please see the course descriptions.

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 their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ). For complete details on the advantages of their first course (see also Courses and Programs FAQ).

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 or external 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).

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 Curriculum Advising 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 information session. 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 2.00 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.

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 or external 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
- CNUR 805 Nursing: The Evolution of Theoretical Knowledge
- CNUR 806 Nursing: Current Issues and Future Perspectives
- CNUR 831 Nursing: Leadership Development for Practice
- CNUR 833 Nursing: Organizational Context of Practice

Electives – Group A (select two)
- CHSM 305 Health Services Management: The Management Cycle
- CMHR 501 Human Resources: Organizational Behaviour II
- CMHR 521 Human Resources: Industrial Relations
- CMHR 523 Human Resources: Human Resources Management
- CMHR 601 Human Resources: Diversity and Equity in the Workplace
- CMHR 623 Human Resources: Recruitment and Selection (Staffing)

Note: Students who have completed CNUR 831 and CNUR 833 may register in CMHR 305 without having completed the prerequisite, CMHR 405. Two of CMHR 305, CMHR 522, CMHR 523, and CMHR 623 may be credited to the BScN Program.

Electives – Group B (select two)
- CVNU 317 Nursing: Health and Social Policy
- CVNU 520 Nursing: Health Law
- CVNU 521 Nursing: Financial Management
- CVNU 522 Nursing: Computer and Information Management in Nursing

Please Note: The required courses in this certificate may be credited toward the BScN program. Group B Electives (CVNU 317, CVNU 520, CVNU 521, or CVNU 522) may be used as substitution for a Nursing Elective in the BScN program.

Distance Education
The following courses are available in a distance education format.
- CNUR 830 Nursing: Current Issues and Future Perspectives
- CNUR 831 Nursing: Leadership Development for Practice
- CNUR 833 Nursing: Organizational Context of Practice
- CHSM 305 Health Services Management: The Management Cycle
- CMHR 521 Human Resources: Human Resources Management
- CVNU 517 Nursing: Health and Social Policy
- CVNU 522 Nursing: Computer and Information Management in Nursing

Certificate Requirements
The certificate will require the completion of seven courses, with a cumulative grade point average of 2.00 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.

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 or external 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: Entertainm 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

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Macroeconomic Theory and Policy

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.

Academic Coordinator: Michael Jolly, mjolly@ryerson.ca.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses with a cumulative grade point average of 2.00 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.

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 351 Economics: Economic Development
- CECN 406 Economics: Money and Banking
- CECN 606 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.
- CECN 104 Economics: Introductory Microeconomics
- CECN 204 Economics: Introductory Macroeconomics
- CECN 506 Economics: Money and Banking
- CECN 606 Economics: International Monetary Economics

Magazine and Web Publishing

Formerly: Magazine Publishing

The Certificate in Magazine and Web Publishing is designed to provide essential knowledge and skills in all aspects of producing a magazine, from writing to editing to ad sales, circulation, and production. Students in the certificate come from various backgrounds:
- those planning a career in the magazine industry, either staff or freelance
- those working at a magazine 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

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 and the Canadian Business Press recognize 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.

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 Curriculum Advising for complete details.

Program Open House
All applicants are encouraged to attend an Open House session, or may contact The Chang School at 416.979.5035 or 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of seven 42-hour courses, or the equivalent, with a cumulative grade point average of 2.00 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.

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 42-hour courses or equivalent combination of electives totalling 210 hours)

42-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 210 Magazine and Web Publishing: Magazine Production
21-Hour Courses
Students may substitute two of the following 21-hour courses for any of the above 42-hour electives.
- CDJN 120 Magazine and Web Publishing: Magazine Fact-Checking and Research
- CDJN 121 Magazine and Web Publishing: Editing Service Journalism
- CDJN 122 Magazine and Web Publishing: Substantive Editing for Magazines
- CDJN 201 Magazine and Web Publishing: Magazine Advertising Sales
- CDJN 203 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 208 Magazine and Web Publishing: Ad Sales on the Web

Note to registered certificate program students
Effective Fall 2010, the Certificate in Magazine Publishing has been revised to Magazine and Web Publishing. After this time, graduating students will receive the new certificate name.

Electives (21-Hour Courses)
CDJN 208 added.
CDJN 201 deleted.

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/ce/rtc.

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 Curriculum Advising 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 Open House session. 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 information session. 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 2.00 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.

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 Programs
- CBDC 946 Broadcasting and Media Production: Interactive Writing
- CDMP 125 Film Studies: Fiction Screenwriting
- CDMP 126 Film Studies: Non-fiction Screenwriting
- CBDC 940 deleted.
- CDRT 204 deleted.
- CDMP 125 and CDMP 126 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 Curriculum Advising 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 information session. 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 2.00 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.

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/Alternates 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)
  - 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 602 Psychology: Child Development
  - CPSY 603 Psychology: Developmental Psychopathology
  - CPSY 605 Psychology: Psychology of Health and Health Care
  - CPSY 621 Psychology: Psychology of Human Sexuality
  - CPSY 622 Psychology: Death, Dying, and Bereavement
  - CPSY 605 Psychology: Adjustment, Stress and Coping
  - CPSY 806 Psychology: Behaviour Modification
  - CPSY 808 Psychology: Community Psychology

Note to registered certificate program students
This certificate program was revised effective July 1, 2009. Students who are formally registered in the certificate prior to July 1, 2009, must complete the requirements in effect at the time of registration. Students can take either CPSY 214 or CPSY 607 but not both. Electives Groups A and B have been amalgamated. Elective Group C becomes Group B. COPS 606 was deleted, therefore making it necessary to combine the two elective groups. COPS 250 replaces CPSY 961.

Distance Education
The following course is available in a distance education format.
CPSY 607 Psychology: Drugs and Human Behaviour

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.

Academic Coordinator: Michael Jolly, mjolly@ryerson.ca.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.
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 Swoeger-Ruston, pruston@ryerson.ca (copying Associate Program Director, Anne-Marie Brinsmead, at a2brinsm@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 Curriculum Advising 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 information session. 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 2.00 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.

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 101: Economics: Introductory Microeconomics
- CECN 206: Economics: Introductory Macroeconomics
- CECN 304: Economics: Intermediate Microeconomics I
- Electives (select three)
  - CECN 109: Economics: Statistics for Economics I
  - CECN 312: 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.
  - CECN 104: Economics: Introductory Microeconomics
  - CECN 204: Economics: Introductory Macroeconomics

Advanced Neuroscience – Stroke Care

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 on-site videoconferencing instruction through the Ontario Telemedicine Network (OTN).

For detailed certificate and program information, please visit www.ryerson.ca/ce/neuroscience-stroke.

Program Manager: Paula Mastrilli, ceneuroscience@ryerson.ca or 416.979.5000, ext. 2061.

Admission Requirements
A baccalaureate degree or equivalent in a health-related field of study and a minimum of one year’s 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.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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.
Nonprofit and Voluntary Sector Management

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

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 information session. 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 2.00 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.

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 660 Neuroscience: Critical Appraisal of Evidence
• CVNS 662 Neuroscience: Health Promotion Paradigms
• CVNS 650 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

Centre for Voluntary Sector Studies: Gerda Kaegi, Academic Coordinator, 416.979.5035. For detailed certificate and program information, please visit www.ryerson.ca/ce/nonprofit.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight single-term courses (four required courses and four electives), with a cumulative grade point average of 2.00 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.

Course Delivery Schedule

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<td>Electives</td>
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<td>CINP 910</td>
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<tr>
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<tr>
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<tr>
<td>CINP 915</td>
<td>H/D</td>
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<tr>
<td>CINP 916</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
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</tbody>
</table>

C = Classroom
D = Distance
H = Hybrid (classroom/Internet combined)

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

The Chang School Courses and Programs 2011-2012
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

Occupational Health and Safety

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

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). 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.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight courses, with a cumulative grade point average of 2.00 or higher, is required for the certificate.

Certificate Registration
Students may be registered in only one certificate program at any 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.

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/Dismissals 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.

Note to registered certificate program students
Electives
CPPA 101 replaces CPPA 322.
## Organizational Leadership

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.

### 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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

### Certificate Requirements

The successful completion of six courses, with a cumulative grade point average of 2.00 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.

### 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 information session. 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 2.00 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.

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CMHR 405</td>
<td>Human Resources: Organizational Behaviour</td>
</tr>
<tr>
<td>CMHR 640</td>
<td>Human Resources: Leadership</td>
</tr>
<tr>
<td>CMHR 650</td>
<td>Human Resources: Management of Change</td>
</tr>
<tr>
<td>CMHR 750</td>
<td>Human Resources: Cross-Cultural</td>
</tr>
<tr>
<td>CMHR 751</td>
<td>Human Resources: Negotiation</td>
</tr>
<tr>
<td>CMHR 741</td>
<td>Human Resources: Managing</td>
</tr>
<tr>
<td>CMHR 850</td>
<td>Human Resources: Organization</td>
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<tr>
<td>CMHR 855</td>
<td>Unassigned - placeholder entry</td>
</tr>
</tbody>
</table>

### Electives

Choose four courses from the following:

- CMHR 405 Human Resources: Organizational Behaviour
- CMHR 640 Human Resources: Leadership
- CMHR 650 Human Resources: Management of Change
- CMHR 750 Human Resources: Cross-Cultural
- CMHR 751 Human Resources: Negotiation
- CMHR 741 Human Resources: Managing
- CMHR 850 Human Resources: Organization
- CMHR 855 Unassigned - placeholder entry

### Distance Education

The following courses are available in a distance education format:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CMHR 405</td>
<td>Human Resources: Organizational Behaviour</td>
</tr>
<tr>
<td>CMHR 905</td>
<td>Human Resources: Organizational Behaviour</td>
</tr>
</tbody>
</table>

### 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.

### Individual Courses

Students not wishing to complete the Certificate in Photography Studies may take individual courses from the certificate program for general interest.

### 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.

The successful completion of six courses, with a cumulative grade point average of 2.00 or higher, is required for the certificate.

### Equipment/Facilities Use

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

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CDFP 320</td>
<td>Photography: Techniques of Photography</td>
</tr>
<tr>
<td>CDFP 361</td>
<td>Photography: Techniques of Photography</td>
</tr>
<tr>
<td>CDFP 391</td>
<td>Photography: History of Photography</td>
</tr>
<tr>
<td>CDFP 383</td>
<td>Photography: Digital Capture</td>
</tr>
<tr>
<td>CDFP 384</td>
<td>Photography: Digital Capture</td>
</tr>
<tr>
<td>CDFP 391</td>
<td>Photography: History of Photography</td>
</tr>
</tbody>
</table>
Electives (select five)
- CDFP 322 Photography: Art Direction/Design Techniques
- CDFP 332 Photography: Digital Printing
- CDFP 351 Photography: Advanced Fashion Photography
- CDFP 382 Photography: Advanced Portrait Photography
- CDFP 385 Photography: Digital Tools I
- CDFP 386 Photography: Digital Tools II
- CDFP 389 Photography: Commercial Product Photography I
- CDFP 390 Photography: Commercial Product Photography II
- CDFP 392 Photography: Approaches to Documentary Photography
- CDFP 398 Photography: History of Photography II
- CDFP 401 Photography: Creative Wedding Photography
- CDFP 404 Photography: Photography Assignments
- CDFP 405 Photography: Architectural Photography
- CFPN 321 Photography: Advanced Studio Lighting
- CFPN 331 Photography: Media Business Studies
- CFPN 339 Photography: The Human Figure
- CFPN 431 Photography: Historical Processes Workshops

For detailed certificate and program information, please visit 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 and submit an Application for Admission to 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 Curriculum Advising for complete details. Please contact Diane Candidotto, Academic Coordinator prior to enrolling in a course.

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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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

Note to registered certificate program students
This program has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Required Courses
- CFNA 101 deleted.
- CFNA 100 replaces CVPA 100.
- CFNA 201 replaces CVPA 201.
- CFNA 202 replaces CVPA 202.
- CFNA 301 replaces CVPA 301.

Distance Education
The following courses are available in a distance education format.
- 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.

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 Curriculum Advising 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 information session. 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 2.00 or higher, is required for the certificate.

Advanced Placement
If the student completes four courses at a level higher than CFRE 402, 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.

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/Exceptions 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 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 502: French: Advanced Business French II
- CFRE 503: 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: Advanced Grammar and 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: Advanced Grammar and Writing II
- CFRE 701: French: Language for Today I
- CFRE 704: French: Intro to Franco-Canadian Culture I
- CFRE 801: French: Language for Today II
- CFRE 803: French: French Theatre: 20th C and Contemporary
- CFRE 804: French: Intro to Franco-Canadian Culture II

Note to registered certificate program students
This certificate has been revised effective July 1, 2006. Students who formally registered in the certificate prior to July 1, 2006, must complete the program requirements in effect at the time they registered. For further information, please contact the program assistant for Arts at 416.979.5000, ext 5311.

Required Courses
CFRE 101 deleted.
CFRE 101 is now an Admission Requirement.
Electives
CFRE 402, CFRE 508, CFRE 509, CFRE 515, CFRE 608, CFRE 609, and CFRE 803 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.

Admission Requirements
Completion of Introductory Spanish I (CSPN 101) with a minimum grade of C+, or admission by placement assessment and interview.

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 information session. 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 2.00 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.

116 For the most current information, see our website at www.ryerson.ca/ce. 117
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 315 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

Certificate Requirements
The successful completion of six credits (four required courses and six to eight electives (or 168 course hours)), with a cumulative grade point average of 2.00 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.

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).

Program and Portfolio Management
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.

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).

Note: The Program Director may waive the admission requirements if a prospective student has either exceptional work experience or educational qualifications. To see if you qualify, please contact the Program Director at peter.monkhouse@ryerson.ca or attend an Open House session.

Undergraduate students wishing to pursue a continuing education certificate program should be aware of possible restrictions; please refer to Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

For the most current information, see our website at www.ryerson.ca/ce.

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Project Management

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

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.

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 Curriculum Advising 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 information session. 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 2.00 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.

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. These courses are scheduled during the Fall and Winter terms.

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 Business 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
- 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

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
- CITM 305 Business Technology Management: Systems Analysis and Design
- CITM 410 Business 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
- CVLT 102 Long Term Care: Principles of Long Term Care Service Delivery

Note: Unlike the industry specific streams, the general stream does not have a free elective.

Electives – All Streams (select one or 42 hours)
21-Hour Courses
- CKPP 110 Program and Portfolio Management: Overview of Program Management
- CKPP 120 Program and Portfolio Management: Overview of Portfolio Management

42-Hour Courses
- CCMM 114 Communication: Short Management Reports
- CHSM 506 Health Services Management: Management Leadership and Decision-Making
- CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CHSM 305 Business Technology Management: Managing Information Systems
- CKPM 207 Project Management: Project Management Systems
- CKPM 213 Project Management: Topics in Project Management
- CKPM 216 Project Management: Project Management Internship
- CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- CVLT 401 Long Term Care: Project Management in Long Term Care Administration

Note to registered certificate program students
This certificate has been revised effective July 1, 2006. Students who formally registered in the certificate prior to July 1, 2006, 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
CITM 724 and CPLE 850 deleted.
CKPP 110, CKPP 120, CKPM 215, and CKPM 216 added.

Distance Education
The following courses are available in a distance education format.
- CKPM 203 Project Management: Planning and Scheduling
- CKPM 209 Project Management: Project Risk and Quality Management
- CKPP 211 Project Management: Leadership in Project Management
- CKPM 212 Project Management: Project Cost and Procurement Management

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
- CKPP 211 Business Technology Management: Systems Analysis and Design
- CKPP 207 Business Technology Management: Short Management Reports
- CHSM 506 Health Services Management: Management Leadership and Decision-Making
- CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CCMM 114 Communication: Short Management Reports
- CHSM 506 Health Services Management: Management Leadership and Decision-Making
- CINT 905 Interdisciplinary Studies: Conflict Resolution in Community Services
- CHSM 305 Health Services Management: Managing Information Systems
### 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 Curriculum Advising 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 information session. 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 2.00 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.

### Requirements for Graduation

To graduate, you must successfully complete the published certificate curricula from the time 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:
- CPSY 202 Psychology: Independent Study
- CPSY 601 Psychology: Research Methodology
- CPSY 102 Psychology: Introduction to Psychology I
- CPSY 205 Psychology: Perspectives in Psychology

Students planning to enroll in the Independent Study course should contact the Academic Coordinator, Department of Psychology, at 416.979.3000, 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 302 Psychology: Introduction to Psychology II
- CPSY 214 Psychology: Psychopharmacology
- CPSY 215 Psychology: Psychology of Addictions
- CPSY 500 Psychology: Psychology and Law
- CPSY 102 Psychology: Child Development
- CPSY 304 Psychology: Psychology of Gender
- CPSY 308 Psychology: Psychology of Thinking
- CPSY 244 Psychology: Biological Psychology
- CPSY 325 Psychology: Psychological Disorders
- CPSY 402 Psychology: Adult Development
- CPSY 504 Psychology: Social Psychology
- CPSY 505 Psychology: Personality Theory
- CPSY 508 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: Models of Personal Growth
- 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

### 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:

- Growth and Development:
  - CPSY 302, CPSY 402, CPSY 602, CPSY 802
- Abnormal Behaviour:
  - CPSY 215, CPSY 302, CPSY 602, CPSY 606, CPSY 607, CPSY 805, CPSY 806
- Personality:
  - CPSY 505, CPSY 706, CPSY 805
- Social Behaviour:
  - CPSY 304, CPSY 504, CPSY 518, CPSY 614, CPSY 807, CPSY 808

### Note to registered certificate program students

**Correction**

The absence of CPSY 601 in the 2006-2007 annual calendar was incorrect. Students require either CPSY 601 or CPSY 602 to complete the Certificate in Psychology.

### Required Courses

COPS 250 replaces CPSY 961.

### Electives

CPSY 214 and CPSY 518 added. CPSY 813 deleted.
Public Administration and Governance – Level 1 (PADP)

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

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 the Program Administrator, Department of Politics and Public Administration, 416.979.5057.

The Certificate and Advanced Certificate in Public Administration and Governance are designed for 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, 416.979.5057.

Admission Requirements

OSSD with six Grade 12 U or M credits (including English) with a minimum grade of 60 percent, or OSSD with six Grade 12 U or M credits (including English) with a minimum grade point average of 2.00 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.

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 I: Processes
- CPPA 125 Politics and Public Administration: Rights, Equity, and the State

Required Group 1 (select one)

- 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

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 information session. 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 2.00 or higher, is required. Students working toward a certificate must formally register in the Public Administration and Governance program (see introductory note above).

Professional 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.

Note to registered certificate program students

This certificate has been revised effective July 1, 2011. Students who formally registered in the certificate prior to July 1, 2011, must complete the program requirements in effect at the time they registered.

Required

CPOL 332 deleted.
CPPA 101 replaces CPPA 322.
CPPA 102 replaces CPPA 422.
CPPA 125 replaces CPOG 315.

Required Group 1

CPPA 121 replaces CPOG 310.
CPPA 122 replaces CPOG 122.
CPPA 124 replaces CPOG 440.

Distance Education

The following courses are available in a distance education format. 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 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 the Program Administrator, Department of Politics and Public Administration, 416.979.5057.

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, 416.979.5057.

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 Curriculum Advising for complete details.

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 find 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.

Note to registered certificate program students

This certificate has been revised effective July 1, 2011. Students who formally registered in the certificate prior to July 1, 2011, must complete the program requirements in effect at the time they registered.

Required

CPOL 332 deleted.
CPPA 101 replaces CPPA 322.
CPPA 102 replaces CPPA 422.
CPPA 125 replaces CPOG 315.

Required Group 1

CPPA 121 replaces CPOG 310.
CPPA 122 replaces CPOG 122.
CPPA 124 replaces CPOG 440.

Distance Education

The following courses are available in a distance education format. 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 122 Politics and Public Administration: Local Politics and Government

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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 information session. 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 2.00 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.

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 235 Politics and Public Administration: Theories of the State
- CPPA 319 Politics and Public Administration Politics of Work and Labour
- CPPA 333 Politics and Public Administration Research Methods in Public Administration

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

Professionally Related Elective Group C
(Two 1-term courses required)
Please refer to the Undergraduate Calendar, Professionally Related Electives Table I (found at www.ryerson.ca/calendar) for a complete list of appropriate courses.

Student 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.

Certificate program students
This certificate has been revised effective July 1, 2011. Students who formally registered in the certificate prior to July 1, 2011, must complete the program requirements in effect at the time they registered.

Required
- CPPA 211 replaces CPPA 623.
- CPPA 235 replaces CECN 235.
- CPPA 319 replaces CECN 319.
- CPPA 333 replaces CPOG 230.

Distance Education
The following courses are available in a distance education format. Many Liberal Studies and Professionally Related electives are also offered via distance education; please check individual course descriptions.
- CECN 104 Economics: Introductory Microeconomics
- CECN 204 Economics: Introductory Macroeconomics

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 information session. 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 2.00 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.

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
- COPA 501 Politics and Public Administration: Public Sector Leadership
- CPPA 211 Politics and Public Administration: Public Policy

Electives (select three)
- CPPA 501 Politics and Public Administration: Administrative Law
- CPPA 435 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 435 Politics: e-Government
- CPPA 414 Politics and Public Administration: Comparative Public Policy
- CPPA 425 Politics and Public Administration: Intergovernmental Relations

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.

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 Curriculum Advising 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.

For the most current information, see our website at www.ryerson.ca/ce.
Public Relations

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

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 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 Canadian Public Relations Society (CPRS) and 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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of 42-hour courses or the equivalent courses, with a cumulative grade point average of 2.00 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.

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
CDPR 104
CDPR 106
CDPR 113
CDPR 114
CDPR 105
CDPR 107

Required Courses
- CDPR 107 Public Relations: Public Relations Project
- CDPR 111 Public Relations: Writing for Public Relations
- CDPR 201 Public Relations: Public Relations Principles 1

Electives (five 42-hour courses or equivalent combination of electives totalling 210 hours)
42-Hour Courses
- CDPR 104 Public Relations: Planning Programming and Budgeting
- CDPR 105 Public Relations: Research and Program Evaluation
- CDPR 106 Public Relations: Media Relations
- CDPR 107 Public Relations: Public Relations Project
- CDPR 111 Public Relations: Writing for Public Relations
- CDPR 113 Public Relations: Internal Communications Management
- CDPR 114 Public Relations: Reputation Management

Note to registered certificate program students
Effective Fall 2011, the Certificate in Public Relations has been revised. Students who were formally registered in the certificate prior to July 1, 2011, must complete the requirements in effect at the time of their registration.

Required
CDPR 104, CDPR 105, CDPR 106, CDPR 113, and CDPR 114 are now 42-Hour Electives.

Electives
Elective groups added; students must complete five 42-hour electives or equivalent combination of electives totaling 210 hours.
CDPR 101, CDPR 102, and CDPR 103 added as 21-Hour Electives.

Distance Education
The following courses are available in a distance education format.
CDPR 104 Public Relations: Planning Programming and Budgeting
CDPR 105 Public Relations: Research and Program Evaluation
CDPR 106 Public Relations: Media Relations
CDPR 107 Public Relations: Public Relations Project
CDPR 111 Public Relations: Writing for Public Relations
CDPR 113 Public Relations: Internal Communications Management
CDPR 114 Public Relations: Reputation Management
CDPR 201 Public Relations: Public Relations Principles 1
Publishing

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

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).

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 Curriculum Advising 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 recommended to begin by taking either overview course (CDPB 100 or CDPB 200) CDPB 102; CDPB 105; or CDPB 110; and may wish to consider the non-certificate course CDPB 400. 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of eight 42-hour courses or the equivalent, with a cumulative grade point average of 2.00 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.

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/Exceptions 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 42-hour courses or equivalent

21-hour courses required)

<table>
<thead>
<tr>
<th>42-Hour Courses</th>
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<tbody>
<tr>
<td>CDPB 101 Publishing: The Business of Book Publishing</td>
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<tr>
<td>CDPB 102 Publishing: Copy Editing for Books, Journals, and Reports</td>
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<tr>
<td>CDPB 103 Publishing: Production for Books, Journals, and Reports</td>
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<td>CDPB 104 Publishing: Introduction to Book Design</td>
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<td>CDPB 105 Publishing: Sales and Marketing for Book Publishers</td>
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<td>CDPB 106 Publishing: Publicity for Book Publishers</td>
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<td>CDPB 201 Publishing: Literary Rights Management</td>
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<td>CDPB 202 Publishing: Substantive and Stylistic Editing</td>
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<tr>
<td>CDPB 210 Publishing: Publishing in Transition</td>
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<tr>
<td>CDPB 252 Publishing: Publishing in the Electronic Age</td>
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</tbody>
</table>

21-Hour Courses
Students may substitute any two of the following 21-hour courses for any one of the above 42-hour electives.

- CDPB 101 Publishing: Publishing for Children
- CDPB 102 Publishing: Government Reports
- CDPB 104 Publishing: Scholarly and Reference Publishing
- CDPB 109 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
Elected (42-Hour Courses)
CDPB 201 and CDPB 210 added.

Distance Education
The following courses are available in a distance education format.

- 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 310 Publishing: Proofreading for Books, Journals, and Reports
- CDPB 311 Publishing: Indexing for Books, Journals, and Reports
- CDPB 312 Publishing: Publishing in the Electronic Age
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.

Academic Coordinator: Michael Jolly, mjolly@ryerson.ca.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of 10 courses, with a cumulative grade point average of 2.00 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.

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 230 Economics: Mathematics for Economics
• CECN 301 Economics: Intermediate Macroeconomics I
• CECN 329 Economics: Statistics for Economics II
• CECN 427 Economics: Econometrics I
• CMTH 189 Mathematics: Introduction to Mathematics for Economics

Electives (select two)
• CECN 104 Economics: Intermediate Microeconomics I
• CECN 506 Economics: Intermediate Macroeconomics II
• CECN 605 Economics: Labour Economics
• CECN 700 Economics: Intermediate Macroeconomics II
• CECN 702 Economics: Econometrics II

Note to registered certificate program students
Required Courses
• CMTH 240 deleted.

Distance Education
The following courses are available in a distance education format.
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 416.979.5355. Registered certificate program students should contact the Academic Coordinator, Sheldon Reinisil at sreinisil@ryerson.ca or 416.979.5000, ext. 4594, for guidance on how to complete their program requirements.

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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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

Distance Education
The following courses are available in a distance education format.
CVCY 101 Residential Care for Children and Youth: Communications in Residential Care
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
Retail Management

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

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.

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 Curriculum Advising 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 information session. 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 2.00 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.

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/Exceptions may be requested. Also, you must apply on RAMSS to graduate, prior to the appropriate application deadlines (see Important Dates).

Required Courses
- CRMG 200 Retail Management: Introduction to Retail Management
- CRMG 302 Retail Management: Retail Consumer Insight

Electives (select four)
- CENT 300 Entrepreneurship: New Venture Startup
- CGMS 200 Global Management: Introduction to Global Management
- CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- CMHR 530 Human Resources: Human Resources Management
- CMKT 305 Marketing: Principles of Marketing
- CQMS 402 Quantitative Methods: Business Statistics I
- CRMG 301 Retail Management: Retail Operations: Processes and Value Chain
- CRMG 303 Retail Management: Service Quality Management
- CRMG 400 Retail Management: Buying Process I
- CRMG 434 Retail Management: Introduction to Logistics and Supply Chain Management
- CRMG 452 Retail Management: Visual Merchandising and Space Planning
- CRMG 502 Retail Management: Franchising
- CRMG 507 Retail Management: Relationship Marketing
- CRMG 509 Retail Management: Advanced Buying Process II
- CRMG 510 Retail Management: Multi-Channel Retailing
- CRMG 511 Unassigned - placeholder entry: Retail Sales Management
- CRMG 516 Retail Management: Channel Management
- CRMG 519 Retail Management: Applied Demand Forecasting
- CRMG 525 Retail Management: Optimizing Retail Service Quality
- CZRM 100 Retail Management: Industry Project

Distance Education
The following courses are available in a distance education format.
- CRMG 200 Retail Management: Introduction to Retail Management
- CRMG 302 Retail Management: Retail Consumer Insight
- CENT 300 Entrepreneurship: New Venture Startup
- CGMS 200 Global Management: Introduction to Global Management
- CMHR 405 Human Resources: Organizational Behaviour and Interpersonal Skills
- CMHR 530 Human Resources: Human Resources Management
- CMKT 100 Marketing: Principles of Marketing
- CQMS 102 Quantitative Methods: Business Statistics I
- CRMG 400 Retail Management: Buying Process I
- CRMG 452 Retail Management: Visual Merchandising and Space Planning
- CRMG 502 Retail Management: Franchising
- CRMG 507 Retail Management: Relationship Marketing
- CRMG 509 Retail Management: Advanced Buying Process II
- CRMG 510 Retail Management: Multi-Channel Retailing

Strategic Marketing

Formerly: Marketing Management

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.

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 Curriculum Advising 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 Strategic Marketing. 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six courses, with a cumulative grade point average of 2.00 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.

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 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 502 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 700 Marketing: The First Business Intelligence/Decision Modeling
- CMKT 850 Unassigned - placeholder entry: Applied Research Project

Social Media Stream
- CITM 550 Business 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 828 Marketing: Sport Marketing Concepts and Strategy
- CMKT 829 Unassigned - placeholder entry: International Sport Marketing
- CMKT 850 Unassigned - placeholder entry: Applied Research Project

Strategic Marketing (General Stream)
- CGMS 532 Global Management: International Marketing
- CITM 550 Business 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 273 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 Unassigned - placeholder entry: International Sport Marketing
- CMKT 850 Unassigned - placeholder entry: Applied Research Project

Note to registered certificate program students
Effective Fall 2010, the Certificate in Marketing Management was revised to Strategic Marketing to better prepare you for current and future work in the field. Students who formally register in the certificate after July 1, 2010 will automatically be enrolled in the Strategic Marketing certificate.

Students formally registered in the certificate prior to June 30, 2009, must successfully complete the published certificate curricula from the year you registered in the certificate. Note: Some courses from the certificate were phased out over the 2009-2010 academic year.

Students formally registered in the certificate between July 1, 2009 and June 30, 2010, must successfully complete the published certificate curricula from the 2009-2010 academic year. Students in this circumstance who wish to transfer their registration to the new curriculum must complete a Certificate Program Registration/Transfer Form and submit it to The Chang School by fax at 416.979.5277 or in person at Heaslip House, 257 Victoria Street, Toronto, Ontario, M5B 1W1.

Distance Education
The following courses are available in a distance education format.

CMKT 100 Marketing: Principles of Marketing
CMKT 300 Marketing: Marketing Metrics and Analysis
CITM 550 Business Technology Management: Concepts of e-Business
CMKT 400 Marketing: Understanding Consumers and the New Media

Sustainability
The certificate consists of six courses: three required and three electives. The first required course provides conceptual and theoretical 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 or 3BL) – its equal and mutually-reinforcing social, economic, and environmental components – 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.

Admission Requirements
Applicants must complete an application for pre-approval form, be approved by the academic coordinator, and 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 Curriculum Advising 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 information session. Please see Open House for dates, times, and location.

Certificate Requirements
The successful completion of six single-term courses, with a grade point average of 2.0, is 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.

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 150 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

Urban Environment Electives
- CKAR 500 Architecture: Sustainable Buildings
- CKAR 610 Architecture: Architectural Preservation and Conservation Techniques
- 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

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
- CKSS 201 Sustainability: Sustainability Topics and Trends

Note to registered certificate program students
Natural Environment Electives
CKES 160 replaces CKES 123.
CKES 180 replaces CKES 150.
CKES 210 replaces CKES 140.
CKES 190 added.

Socioeconomics Electives
CHTT 510 and CKSS 201 added.

Distance Education
The following courses are available in a distance education format.
- CFNY 404 Food Security: Food Policy and Programs for Food Security
- CFNY 407 Food Security: Community Development and Food Security
- CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- CVFN 410 Food Security: Understanding Urban Agriculture

Telecommunications 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.

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 Curriculum Advising 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 information session. 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 2.00 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/calend a r 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.

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).
The Certificate in Television Production Fundamentals will not be accepting any new registrants. The certificate has been discontinued effective Fall 2011. Students formally registered in the certificate prior to June 30, 2011, must complete the program requirements in effect at the time they registered. For further information, please contact the Communication and Design area at 416.979.5035.

Required Courses
- CITM 301 Business Technology Management: Introduction to IT Infrastructure
- CITM 505 Business Technology Management: Systems Analysis and Design
- CITM 600 Business Technology Management: Data Communications Network Design

Electives (select three)
- CITM 315 Business Technology Management: Network Administration
- CITM 420 Business Technology Management: Information Systems Security and Control
- CITM 520 Business Technology Management: Adv Infrastructure Deployment and Management
- CITM 704 Business Technology Management: Emerging Voice and Multimedia Systems
- CITM 712 Business Technology Management: Switching and Routing Laboratory
- CITM 750 Business Technology Management: IT Project Management

Note to registered certificate program students
This certificate has been revised effective July 1, 2009. Students who formally registered in the certificate prior to July 1, 2009, must complete the program requirements in effect at the time they registered.

Required Courses
CITM 505 deleted.

Electives
CITM 350, CITM 515, CITM 705, CITM 710, and CITM 715 deleted.

Distance Education
The following courses are available in a distance education format.
CITM 305 Business Technology Management: Systems Analysis and Design
CITM 750 Business Technology Management: IT Project Management
The Course Series in Business Systems Analysis (BSA) is for individuals who are involved in an organization’s business process or system change, including those currently practising business and systems analysis.

The BSA program is currently under review and will not be accepting new registrants at this time. Currently registered students who have completed one or more courses, but have not completed the entire program, are advised to complete the program requirements during the Fall 2011 term.

Required Courses
- CZSA 100 Business Systems Analysis: Business Systems and Strategy
- CZSA 300 Business Systems Analysis: Business Process Analysis and Design

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.

International Accounting and Finance Professionals (IAFP)
The International Accounting and Finance Professionals (IAFP) is for individuals who are involved in an organization’s business process or system change, including those currently practising business and systems analysis. 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.

The International Midwifery Pre-registration Program (IMPP)
The International Midwifery Pre-registration Program (IMPP) is a nine-month bridging program. It provides internationally educated midwives with the following:
- skills assessment
- information about how midwives practice in Ontario
- clinical placements
- mentoring
- final pre-registration exam

The IMPP is intended for experienced international midwives, fluent in English, who have practised 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.

For more information and to find out more about your eligibility for the program, visit the IMPP website at 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.

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.
Information Technology Studies

.NET Application Developer

C# is an object-oriented programming language developed by Microsoft that uses the Common Language Infrastructure (CLI) for library and runtime support. Students will gain hands-on experience with tools for web application development within the .NET family of products using 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.

For general admission information, contact ce@ryerson.ca or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at itsstudies@ryerson.ca or 416.979.5000, ext. 7907.

Those who successfully complete this course series will receive a .NET Application Developer recognition from Ryerson University.

Recommended Sequence

Students are advised to take the Required Courses in the following sequence: CXEC 300 or CXEC 302; CXEC 309; CXEC 304; CXEC 305.

Required Courses

Students may only select one of CXEC 300 or CXEC 302.

• CXEC 300 .NET Application Developer: Programming With C# and the .NET Framework
• CXEC 304 .NET Application Developer: Developing XML Web Services and Server Components with the Microsoft .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 340 .NET Application Developer: Microsoft SharePoint Web Development
• CXEC 341 .NET Application Developer: Microsoft Silverlight Development

Certified Cisco Networking Associate (CCNA)

This two-course series will provide students with the fundamental skills and knowledge of Cisco technologies. The series may assist you to prepare for the Certified Cisco Networking Associate (CCNA), the first step in Cisco Career Certification.

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.

For general admission information, contact ce@ryerson.ca or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at itsstudies@ryerson.ca or 416.979.5000, ext. 7907.

Those who successfully complete this course series will receive a Certified Cisco Networking Associate recognition from Ryerson University.

Required Courses

• CXNA 101 Certified Cisco Networking Associate (CCNA): Networking Basics for Cisco
• CXNA 102 Certified Cisco Networking Associate (CCNA): Interconnecting Cisco Network Devices (ICND)

Supplementary Courses

• CXCC 104 Certified Information Systems Security Professional (CISSP)

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 program will provide the learner 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 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.

For general admission information, contact ce@ryerson.ca or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at itsstudies@ryerson.ca or 416.979.5000, ext. 7907.

Those who successfully complete this course series will receive a Computer and Network Support recognition 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 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 program will provide 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 program may assist you with your preparation for various 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.

For general admission information, contact ce@ryerson.ca or 416.979.5035. For information about Information Technology Studies, contact Janet Shusterman at itsstudies@ryerson.ca or 416.979.5000, ext. 7907.

Those who successfully complete this course series will receive a Java EE Solution Developer recognition from Ryerson University.

Recommended Sequence

Students are advised to take the Required Courses in the following sequence: CXEC 320; CXEC 312; CXEC 313; CXEC 332 or CXEC 343.

Required Courses

Students may only select one of CXEC 320 or CXEC 332.

• CXEC 312 Java EE Solution Developer: Developing JEE Compliant Applications (JavaBeans)
• CXEC 313 Java EE Solution Developer: Web Component Development with Java Technology (Servlets and JSP)
• CXEC 332 Java EE Solution Developer: Java Advanced
• CXEC 332 Java EE Solution Developer: Developing Advanced Web Applications Using Java
• CXEC 334 Java EE Solution Developer: Spring and Hibernate Java Apps

Supplementary Courses

• CXEC 338 Java EE Solution Developer: Android Wireless Application Development
Website Design and Development

This course series will provide learners with the foundation to design and develop creative websites by providing the skills required to control the way a website is displayed as well as incorporate dynamic functionality.

Entry into this course series is appropriate for learners who 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.

For general admission information, contact ce@ryerson.ca or 416.979.3035. For information about Information Technology Studies, contact Janet Shusterman at itstudies@ryerson.ca or 416.979.5000, ext. 7907.

Those who successfully complete this course series will receive a Website Design and Development recognition from Ryerson University.

Recommended Sequence

Students are advised to take the Required Courses in the following sequence: CXCP 663; CXCP 185; CXCP 673; CXCP 679 or CXCP 700.

Required Courses

Students may only select one of CXCP 679 or CXCP 700.

• CXCP 185 Website Design and Development: Adobe Creative Suite for the Web
• CXCP 663 Website Design and Development: HTML and Cascading Style Sheets
• CXCP 673 Website Design and Development: JavaScript
• CXCP 679 Website Design and Development: Flash
• CXCP 700 Advanced Website Design and Development: Advanced Dreamweaver with CSS

Supplementary Courses

• CXCP 184 Website Design and Development: Adobe Photoshop
• CXCP 685 Website Design and Development: PHP/MySQL Web Design Fundamentals
• CXCP 695 Website Design and Development: eCommerce Design with PHP/MySQL
• CXCP 705 Website Design and Development: Ajax with jQuery Introduction

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 will be awarded a recognition of achievement. For general information, contact mena.carravetta@ryerson.ca or 416.979.3103.

For further information about this course series, please visit www.ryerson.ca/ce/programs50plus.

Required Courses

• CSAC 109 ACT II STUDIO: Clown and Comedy: Introduction to Clown
• CSAC 910 ACT II STUDIO: Clown and Comedy: Caring Clown Basics
• CSAC 911 ACT II STUDIO: Clown and Comedy: Caring Clown Practicum

Retail and Services 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.

For more information, please visit www.ryerson.ca/ce/retail or contact Sean Sedlezky, Academic Coordinator, Retail Management at ssedlezk@ryerson.ca.

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, simulations, and online discussions. Other topics will include teamwork, employee motivation, retail metrics, and meeting consumers’ needs.

For more information, please visit www.ryerson.ca/ce/retail or contact Sean Sedlezky, Academic Coordinator, Retail Management at ssedlezk@ryerson.ca.

Required Courses

• CRMG 101 Retail Management: Retail Operations Processes and Value Chain
• CRMG 900 Retail Management: Retail Operations I: HR Challenges
• CRMG 901 Retail Management: Retail Operations II: Productivity Issues

Urban Agriculture

In order to help students develop their skills and capacity to address global problems, specifically those related to the current global food crisis and climate change, an urban agriculture course series has been developed as part of the elective offerings of The Chang School’s Certificate in Food Security. The series will consist of four courses and students who complete them will receive official acknowledgement from the University of having achieved completion.

The four courses, which are all available via distance education, are:

• Understanding Urban Agriculture (CVFN 410) – see sample course outline
• Dimensions of Urban Agriculture (CVFN 411) – see sample course outline
• Urban Agriculture Types (CVFN 412) – see sample course outline
• Urban Agriculture Policy-Making (CVFN 413) – see sample course outline

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.

For more information about the Course Series in Urban Agriculture, please view our flyer.

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).