

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; and Science and Engineering.

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C Applied Digital Geography and GIS, Advanced	49
C Criminal Justice and Criminology	29
C Geotechnology for Teachers.....	47
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C Public Administration and Governance – Level 1 (PADP)	83
C Public Administration and Governance – Level 2 (PADP)	84

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C Applied Digital Geography and GIS, Advanced	49
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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
- Computer Science
- Child and Youth Care
- Criminal Justice
- Disability Studies
- Early Childhood Education
- Health Information Management
- Health Services Management
- Information Technology 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

Certificates in Accounting and Finance

■ Accounting – Finance

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 listed under the **Professional Designations** in the **Business, Management, and Economics** section of the Chang School website at www.ryerson.ca/ce.

Admission Requirements

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

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce on the *Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

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

Electives (select two)

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

■ Note 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 the **Professional Designations in the Business, Management, and Economics** section of the Chang School website at www.ryerson.ca/ce.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

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

■ 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 at www.ryerson.ca/ce/iafp.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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, Complementary, 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

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 (select at least one)

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

- CACC 110 **Accounting:** Financial Accounting for Accounting Majors
- CACC 410 **Accounting:** Management Accounting for Accounting Majors
- CACC 414 **Accounting:** Intermediate Accounting I
- CACC 504 **Accounting:** Accounting Cases and Concepts I
- CACC 514 **Accounting:** Intermediate Accounting II
- CACC 522 **Accounting:** Taxation for Managers and Financial Planners
- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics
- CECN 506 **Economics:** Money and Banking
- CFIN 300 **Finance:** Managerial Finance I
- CFIN 401 **Finance:** Managerial Finance II
- CFIN 501 **Finance:** Investment Analysis I
- CFIN 502 **Finance:** Personal Financial Planning
- CFIN 512 **Finance:** Risk Management and Insurance
- CFIN 601 **Finance:** Investment Analysis II
- CFIN 612 **Finance:** Retirement and Estate Planning
- CFIN 812 **Finance:** Advanced Personal Financial Planning
- CGMS 200 **Management:** Introduction to Global Management
- CITM 102 **Information Technology Management:** Business Information Systems I
- CITM 595 **Information Technology Management:** Auditing of Information Systems
- CITM 696 **Information Technology Management:** Accounting Information Systems
- CLAW 122 **Law:** Business Law
- CLAW 603 **Law:** Advanced Business Law
- CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills
- CMHR 523 **Human Resources:** Human Resources Management
- CQMS 102 **Quantitative Methods:** Business Statistics I
- CQMS 202 **Quantitative Methods:** Business Statistics II
- CZAC 122 **International Accounting Professionals (IAFP):** Business Law
- CZAC 603 **International Accounting Professionals (IAFP):** Advanced Business Law
- CZAC 742 **International Accounting Professionals (IAFP):** Canadian Business Taxation I
- CZAC 842 **International Accounting Professionals (IAFP):** Canadian Business Taxation II
- CZAF 122 **International Finance Professionals (IAFP):** Business Law
- CZAF 522 **International Finance Professionals (IAFP):** Tax for Financial Planners and Managers

Notes:

Students may only take one of CACC 522 or CZAF 522.
 Students may only take one of CACC 742 or CZAC 742. Those taking CACC 742 may opt to take supplemental course CACC 740.
 Students may only take one of CACC 842 or CZAC 842. Those taking CACC 842 may opt to take supplemental course CACC 840.
 Students may only take one of CLAW 122, CZAC 122, or CZAF 122.
 All students are required to take at least one of these three courses.
 Students may only take one of CLAW 603 or CZAC 603. Those taking CLAW 603 may opt to take supplemental course CACC 640.

Complementary Courses (select at least two)

These courses are designed to assist students as they prepare for professional practice in a Canadian context

- CZAC 110 **International Accounting Professionals (IAFP):**
Career Development for Accounting Professionals
- CZAC 200 **International Accounting Professionals (IAFP):**
Prior Learning and Competency Portfolio
- CZAF 110 **International Finance Professionals (IAFP):**
Career Development for Financial Professionals
- CZAF 200 **International Finance Professionals (IAFP):** Prior Learning and Competency Portfolio

Notes:

Students may only take one of CZAC 110 or CZAF 110.
 Students may only take one of CZAC 200 or CZAF 200.

Workplace Culture and Professional Communication Courses

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

- CCMN 114 **Communication: Short Management Reports**
- CCMN 124 **Communication: Communication in ITM**
- CCMN 279 **Communication: Introduction to Contemporary Business Communication**
- CCMN 304 **Communication: Career Advancement Communication**
- CCMN 314 **Communication: Professional Presentations**
- CDCE 210 **Workplace Communication in Canada (WCC):** Introduction to Canadian Workplace Culture and Communication
- CDCE 220 **Workplace Communication in Canada (WCC):** Interpersonal Communication in the Workplace
- CDCE 240 **Workplace Communication in Canada (WCC):** Organizational Practices in Canada
- CDCE 250 **Workplace Communication in Canada (WCC):** Integration of Workplace Related Communication Skills
- CDCE 310 **Workplace Communication in Canada (WCC):** Formal and Informal Communication in the Workplace
- CDCE 320 **Workplace Communication in Canada (WCC):** Advanced Customer Focused Applications
- CDCE 400 **Workplace Communication in Canada (WCC):** Exploring Leadership Skills
- CDCE 410 **Workplace Communication in Canada (WCC):** Canadian Workplace Governance
- CDCE 420 **Workplace Communication in Canada (WCC):** Strategic Working Relationships
- CDCE 430 **Workplace Communication in Canada (WCC):** Leadership in Client Relations
- CDCE 440 **Workplace Communication in Canada (WCC):** Team Building
- CDCE 450 **Workplace Communication in Canada (WCC):** Operational Leadership
- CDCE 910 **Workplace Communication in Canada (WCC):** Effective Oral Communication
- CDCE 920 **Workplace Communication in Canada (WCC):** Canadian Workplace Etiquette

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

■ 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 Planners Standards Council. For details check their website at www.cfp-ca.org.

Program Information: Business, 416.979.5035.

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

Admission Requirements

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:

- 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

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

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

Admission Application

Students seeking admission to this program are required to complete an application for pre-approval and submit it to the academic coordinator for the Certificate in Financial Planning. To obtain an application visit 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 at one of the *Information Nights* (at www.ryerson.ca/ce/infonight), or mailed to the address on the form.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CACC 522 **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

CLAW 603 deleted.

CACC 522 replaces CACC 742 and CACC 842. **Note:** This reduces the number of courses in the certificate from seven to six.

Distance Education

The following course is available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

CFIN 502	Finance: Personal Financial Planning
CFIN 512	Finance: Risk Management and Insurance
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

Certificates in Architecture

■ 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 three additional courses, this eight-course certificate is recognized by the Association of Architectural Technologists of Ontario (AATO) as meeting the educational requirements for membership as a Probationer Technician, provided the prescribed elective courses have been completed. Students interested in the AATO should refer to the **Professional Designations in the Design** section of the Chang School website at www.ryerson.ca/ce.

Admission Requirements

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

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 ytleong@ryerson.ca; 416.979.5000, ext. 6498; or attend a program information night.

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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce) (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

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

- Fall 1: CKAR 300, CKAR 310
- Winter 1: CKAR 103, CKAR 205
- Fall 2: Electives (two)

Certificate in six terms

- Fall 1: CKAR 310
- Winter 1: CKAR 205
- Spring/Summer 1: Elective
- Fall 2: CKAR 300
- Winter 2: CKAR 103
- Spring/Summer 2: Elective

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 209 **Architecture:** Digital Graphics for Architecture and Design
- CKAR 210 **Architecture:** Toronto: An Architectural History
- CKAR 500 **Architecture:** Sustainable Buildings
- CKAR 605 **Architectural Preservation and Conservation:** Comprehensive Seminar/Project
- CKDA 602 **Digital Architecture:** Digital Architectural Modelling
- CKDA 603 **Digital Architecture:** Digital Architectural Rendering I
- CKLA 400 **Landscape Design:** Ecology and Sustainable Landscapes
- CKLA 410 **Landscape Design:** Horticultural Science
- CKPM 202 **Project Management:** Fundamentals of Project Management
- CKPM 213 **Project Management:** Management of Projects in the AEC
- CKPM 214 **Project Management:** Project Development and Control

Candidates for AATO certification should select CKAR 203, CKAR 207, and CKAR 208.

■ 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

- 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.

■ 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 the **Professional Designations** in the **Design** section of the Chang School website at www.ryerson.ca/ce.

Ontario Association for Applied Architectural Sciences

The Ontario Association for Applied Architectural Sciences (OAAAS) recognizes successful completion of the Advanced Certificate in Architecture as fulfilling the academic component of the membership requirements. Please see OAAAS the **Professional Designations** in the **Design** section of the Chang School website at www.ryerson.ca/ce.

Admission Requirements

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

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 ytleong@ryerson.ca; 416.979.5000, ext. 6498; or attend a program information night.

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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Sample Certificate Completion Models

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

Required Courses

- CCMN 432 **Communication:** Communication in the Engineering Professions
- CKAR 201 **Architecture:** Mechanical and Electrical Systems for Buildings
- CKAR 206 **Architecture:** Computer-Aided Architectural Drawing
- CKAR 601 **Architectural Preservation and Conservation:** Building Science for Architectural Preservation and Conservation

Electives (select two)

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

Note to registered certificate program students

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

CKAR 206 added.

Electives

CKAR 202, CKAR 205, 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.

Architectural Preservation and Conservation

This is a highly technical certificate program consisting of eight courses focused on subjects related to building renovation, restoration and rehabilitation, and historical preservation and conservation. The program is designed to provide graduates with specific knowledge and skills in architectural preservation and conservation. While the core courses provide a strong grounding in general issues, the electives allow the students to choose an area of interest or specialization – history, project management, or preservation technologies.

Admission Requirements

Graduates of the Ryerson Advanced Certificate in Architecture

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

Graduates of North American Architectural Schools

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

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

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

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

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

Graduates of Non-North American Architectural Schools

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

- CKAR 310 **Architecture:** Materials and Methods

Graduates of Non-Architectural Programs

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

- CKAR 103 **Architecture:** Architectural Studio – Fundamental
- CKAR 201 **Architecture:** Mechanical and Electrical Systems for Buildings
- CKAR 207 **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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 ytleong@ryerson.ca; 416.979.5000, ext. 6498; or attend a program information night.

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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

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

Electives (select two)

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

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

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

■ 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

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 course is available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CENT 500 **Entrepreneurship: New Venture Startup**
- CKLA 410 **Landscape Design: Horticultural Science**
- CKPM 202 **Project Management: Fundamentals of Project Management**

■ Digital Architecture and Design

The Certificate in Digital Architecture and Design will not be accepting any new registrants. The certificate has been discontinued effective Fall 2009. Students formally registered in the certificate prior to June 30, 2009, must complete the program requirements in effect at the time they registered. For further information, please contact Yew-Thong Leong, the Academic Coordinator at 416.979.5000, ext. 6498.

Certificates in Business

■ 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

Electives (select four)

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

- CCMN 313 **Communication:** Organizational Problem Solving and Report Writing
- CGMS 402 **Management:** Introduction to Managerial Economics
- CHTH 102 **Hospitality and Tourism:** Service and Professionalism
- CMKT 423 **Marketing:** Marketing Research
- CMKT 723 **Marketing:** Marketing in the Service Industry
- CQMS 402 **Quantitative Methods:** Quality Management
- CQMS 442 **Quantitative Methods:** Multiple Regression for Business
- CQMS 521 **Quantitative Methods:** Business Optimization
- CQMS 621 **Quantitative Methods:** Introduction to Quality Control
- CQMS 641 **Quantitative Methods:** Business Research

Note on Electives: For a research focus select CMKT 423, CQMS 442, CQMS 641, and one other.

■ Note to registered certificate program students

Required

CGMS 200 replaces CMGT 200.

Electives

CITM 611 deleted.

CGMS 402 replaces CMGT 402.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CGMS 200 **Management:** Introduction to Global Management
- CITM 102 **Information Technology Management:** Business Information Systems I
- CCMN 313 **Communication:** Organizational Problem Solving and Report Writing
- CHTH 102 **Hospitality and Tourism:** Service and Professionalism
- CMKT 423 **Marketing:** Marketing Research

■ Business Management I

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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CACC 100 **Accounting:** Introductory Financial Accounting
- CECN 104 **Economics:** Introductory Microeconomics
- CGMS 200 **Management:** Introduction to Global Management
- CITM 102 **Information Technology Management:** Business Information Systems I
- CLAW 122 **Law:** Business Law
- CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills
- CMKT 100 **Marketing:** Marketing I
- CQMS 102 **Quantitative Methods:** Business Statistics I

■ Note to registered certificate program students Required

CGMS 200 replaces CMGT 200.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CACC 100 **Accounting:** Introductory Financial Accounting
- CECN 104 **Economics:** Introductory Microeconomics
- CGMS 200 **Management:** Introduction to Global Management
- CITM 102 **Information Technology Management:** Business Information Systems I
- CLAW 122 **Law:** Business Law
- CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills
- CMKT 100 **Marketing:** Marketing I

■ Business Management II

The Certificate in Business Management II will not be accepting any new registrants. The certificate has been discontinued effective Fall 2009. Students formally registered in the certificate prior to June 30, 2009, must complete the program requirements in effect at the time they registered. For further information, please contact the Business program area at 416.979.5035.

■ eBusiness

Important Note: The Certificate in eBusiness is currently under review and will not be accepting new registrants at this time. For further information, please contact the Business area at 416.979.5035.

This certificate program prepares individuals for the rapidly emerging field of electronic commerce. eBusiness is transforming the way business is done. Largely enabled by the widespread availability and use of the Internet, eBusiness impacts virtually every business process, from back office operations to customer service, as well as many processes internal to an organization.

The certificate is coordinated by the Ted Rogers School of Information Technology Management; however, courses are delivered by all four schools within the Ted Rogers School of Management (Faculty of Business).

For detailed certificate and program information, please visit www.ryerson.ca/ce/itm or phone 416.979.5035.

Admission Requirements

This is an advanced certificate. Eligible applicants must have completed a Ryerson certificate in Accounting – Finance, Business Management, Information Systems Development (formerly Business Systems and Programming), Computer Science, Hospitality and Tourism Management, Information Systems Management, or Telecommunications Management, or an undergraduate degree, or a three-year college diploma, as well as completed the following courses or equivalents:

- CACC 100 **Accounting:** Introductory Financial Accounting
- CITM 100 **Information Technology Management:** Business and Information Systems
- CMKT 100 **Marketing:** Marketing I

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

Admission Application

Students seeking admission to this program are required to complete an application for pre-approval and submit it to the academic coordinator for the Certificate in eBusiness. To obtain an application, visit www.ryerson.ca/ce and click on Forms and Documents. The completed application, together with transcripts, may be presented to the academic coordinator at one of the *Information Nights* (at www.ryerson.ca/ce/infonight), or mailed to the address on the form.

Program Information Nights (at www.ryerson.ca/ce/infonight)

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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.

Credit Policies

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

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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Precursor Course (must be taken before the other required courses)

CITM 350 **Information Technology Management: Concepts of e-Business**

Required Courses

CGMS 550 **Management: Business-to-Business E-Commerce**
 CMKT 530 **Marketing: e-Marketing**
 CRMG 910 **Retail Management: Multi-Channel Retailing**

Electives (select a total of four courses)**Electives – Group A (select a minimum of two)**

CENT 526 **Entrepreneurship: Entrepreneurial Behaviour and Strategy**
 CHTI 746 **Hospitality and Tourism: Destination Management Systems**
 CITM 360 **Information Technology Management: Establishing an e-Business Operation**
 CLAW 723 **Law: Issues in Information Technology Law**

Electives – Group B (select a maximum of two)

CITM 200 **Information Technology Management: Fundamentals of Programming**
 CITM 750 **Information Technology Management: IT Project Management**
 CMKT 423 **Marketing: Marketing Research**
 CMKT 502 **Marketing: Consumer Behaviour**

■ Note to registered certificate program students Required

CGMS 550 replaces CMGT550

Electives – Group B

CHTM 402 deleted.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information*.

CGMS 550 **Management: Business-to-Business E-Commerce**
 CMKT 530 **Marketing: e-Marketing**
 CRMG 910 **Retail Management: Multi-Channel Retailing**
 CITM 350 **Information Technology Management: Concepts of e-Business**
 CHTI 746 **Hospitality and Tourism: Destination Management Systems**
 CMKT 423 **Marketing: Marketing Research**
 CMKT 502 **Marketing: Consumer Behaviour**
 CACC 100 **Accounting: Introductory Financial Accounting**
 CITM 100 **Information Technology Management: Business and Information Systems**
 CMKT 100 **Marketing: Marketing I**

■ 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.

Students may specialize in International Economics and Finance or in eBusiness and International Management, or develop a general perspective with any three electives.

Academic Coordinator: Carlyle Farrell: farellc@ryerson.ca.

Admission Requirements

This is an advanced certificate. Eligible applicants must have completed a Ryerson certificate in Accounting – Finance, Business Communication, Business Management, Hospitality and Tourism Management, Purchasing and Supply Chain Management, Retail and Services Management, or an undergraduate degree, or a three-year college diploma, as well as the following courses or equivalents:

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics
- CGMS 401 **Management:** Operations Management
- CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills
- CMKT 100 **Marketing:** Marketing I

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

Admission Application

Students seeking admission to this program are required to complete an application and submit it to the academic coordinator for the Certificate in International Business. To obtain an application for pre-approval, visit the *Forms and Documents* (at www.ryerson.ca/ce) section, or call 416.979.5035. The completed application, together with transcripts, may be presented to the academic coordinator at one of the *Information Nights* (at www.ryerson.ca/ce/infonight), or mailed to the address on the form.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of nine 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CCMN 443 **Communication:** Contemporary Intercultural Communication
- CGMS 522 **Management:** International Marketing
- CGMS 723 **Management:** International Trade
- CLAW 724 **International Business Law:** Legal Aspects of International Business
- CMHR 700 **Human Resources:** Cross-Cultural Dimensions of Organizational Behaviour
- CZIB 100 **International Business:** Practicum in International Business

Electives (select three)

CECN 503	Economics: Economic Development
CECN 606	Economics: International Monetary Economics
CECN 607	Economics: Issues in the International Economy
CECN 609	Economics: European Economic Development
CECN 707	Economics: Economics of International Trade
CECN 721	Economics: International Financial Markets
CECN 802	Economics: The Economies of East Asia
CECN 821	Economics: Country Risk Analysis
CFIN 621	Finance: International Finance
CGMS 550	Management: Business-to-Business E-Commerce
CGMS 724	Management: Management of International Enterprise
CHST 500	History: Understanding International Relations
CITM 350	Information Technology Management: Concepts of e-Business
CLAW 723	Law: Issues in Information Technology Law
CMKT 530	Marketing: e-Marketing
CPHL 307	Philosophy: Business Ethics
CPOL 607	Politics: Technology and Globalization

Note: Students may need additional prerequisites for some elective courses.

Specialization

For specialization, the electives may be grouped as follows:

International Economics and Finance: Select three from CECN 503, CECN 606, CECN 607, CECN 707, CECN 802, CECN 821, and CFIN 621.

eBusiness and International Management: Select three from CITM 350, CLAW 723, CGMS 550, CMKT 530, CPHL 307, CPOL 607, and CRMG 910.

■ **Note to registered certificate program students**
Electives

CMGT 804 and CRMG 910 deleted.

CFIN 621 replaces CIBS 621

CGMS 401 replaces CGMT 401

CGMS 724 replaces CIBS 724

CGMS 550 replaces CMGT 550

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

CGMS 550	Management: Business-to-Business E-Commerce
CITM 350	Information Technology Management: Concepts of e-Business
CMKT 530	Marketing: e-Marketing
CECN 104	Economics: Introductory Microeconomics
CECN 204	Economics: Introductory Macroeconomics
CMHR 405	Human Resources: Organizational Behaviour and Interpersonal Skills
CMKT 100	Marketing: Marketing I

Certificate in

■ **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 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights (at www.ryerson.ca/ce/infonight)

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

Electives (select two)

- CCMN 315 **Communication:** Issues in Communication and the Contemporary Workplace
- CCMN 415 **Communication:** Promotional Communications
- CCMN 447 **Communication:** Communication and Law
- CCMN 448 **Communication:** Introduction to Visual Communication
- CFRE 502 **French:** Advanced Business French I

■ 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

CMHR 405 deleted.
CCMN 443 added.

Electives

CCMN 443 is now a Required course.
CITM 102 and CMHR 505 deleted.
CCMN 315, CCMN 415, CCMN 447, and CCMN 448 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CCMN 279 **Communication:** Introduction to Contemporary Business Communication
- CCMN 313 **Communication:** Organizational Problem Solving and Report Writing

Certificate in

■ Chemical Analysis

This certificate is for students seeking to begin a career in chemistry and is awarded to those completing the eight introductory, university-level courses in general chemistry, analytical chemistry, and organic chemistry. It is ideal for chemical technicians working in industrial or government laboratories who wish to improve their skills in chemical analysis.

Admission Requirements

OSSD with six Grade 12 U or M credits (including Chemistry, Calculus, and English), 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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 further information about the program, please contact the Academic Coordinator, Dr. Anne Johnson, at a3johso@ryerson.ca; 416.979.5000, ext. 6348; or attend a program information night.

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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses (select eight)

CCHY 242	Chemistry: Organic Chemistry II
CKCH 106	Chemistry: General Chemistry I
CKCH 107	Chemistry: General Chemistry Laboratory
CKCH 142	Chemistry: Organic Chemistry I
CKCH 143	Chemistry: Organic Chemistry Laboratory
CKCH 216	Chemistry: Analytical Chemistry I
CKCH 217	Chemistry: Analytical Chemistry Laboratory I
CKCH 223	Chemistry: Analytical Chemistry II
CKCH 224	Chemistry: Analytical Chemistry Laboratory II

Certificates in Computer Science**■ Computer Programming Applications**

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

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

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 rnagendr@ryerson.ca; 416.979.5000, ext. 7058; or attend a program information night.

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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

Core Program, Required Courses, All Streams

CCPS 109	Computer Science: Computer Science I
CCPS 209	Computer Science: Computer Science II
CCPS 305	Computer Science: Data Structures
CCPS 393	Computer Science: Introduction to C and UNIX

Software Engineering Stream, Required Courses

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

Database Technology Stream, Required Courses

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

Networking Stream, Required Courses

CCPS 590	Computer Science: Introduction to Operating Systems
CCPS 706	Computer Science: Introduction to Data Communications

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.

■ Database and Knowledge Management

Database and knowledge management is a core requirement and a high demand area for companies applying IT solutions in their organizations. This certificate will be of interest to students who are already in the field of information technology and who wish to gain additional knowledge in the area of database and knowledge management. It will also provide a solid grounding for those wishing to pursue professional certification.

For further information about the program, please contact The G. Raymond Chang School of Continuing Education, Business, 416.979.5035, or attend a program information night.

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 CITM 305 or equivalent professional experience.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CITM 500 **Information Technology Management: Logical Database Analysis and Design**
- CITM 610 **Information Technology Management: Database Administration**
- CITM 612 **Information Technology Management: Knowledge Management/Learning Technologies**
- CITM 613 **Information Technology Management: Information Services Architecture**
- CITM 617 **Information Technology Management: Physical Dbase Design and Implementation**
- CITM 717 **Information Technology Management: IT-Enabled Customer 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

CITM 729 deleted.

CITM 617 and CITM 717 added.

Electives

CITM 410, CITM 420, CITM 728, and CITM 730 deleted, thereby eliminating the Elective group and thus reducing the number of courses in the certificate from eight to six.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

■ Database Technology

Important Note

The Certificate in Database Technology is currently under review and will not be accepting any new registrants at this time. For further information, please contact the Engineering, Architecture, and Science area at 416.979.5185.

This program is designed to provide students with in-depth knowledge, both theoretical and practical, in database design, client/server applications, and database management. This certificate focuses on the state-of-the-art practice of and new directions in modern database systems such as object-oriented database systems, data warehousing, data mining, and XML-based databases, with an emphasis on the relational database system.

Admission Requirements

OSSD with six Grade 12 U or M credits, or equivalent, or mature student status, or permission of the academic coordinator. Admission is limited to those who have successfully completed these courses or who can provide proof of mastery of the topics covered:

- CCPS 109 **Computer Science:** Computer Science I
- CCPS 209 **Computer Science:** Computer Science II

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The certificate will require the successful completion of seven courses, with a cumulative grade point average of 2.00 or higher. Up to three courses 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, Professor Raj Nagendra, at rnagendr@ryerson.ca; 416.979.5000, ext. 705; or attend a program information night.

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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CCPS 305 **Computer Science:** Data Structures
- CCPS 510 **Computer Science:** Database Systems I
- CCPS 610 **Computer Science:** Database Systems II
- CITM 305 **Information Technology Management:** Systems Analysis and Design
- CKCS 425 **Computer Science:** Database Administration and Security

Electives (select two)

- CKCS 625 **Computer Science:** Data Warehousing and Data Mining
- CKCS 640 **Computer Science:** Object-Oriented Database Management Systems
- CKCS 645 **Computer Science:** Designing XML Databases

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CITM 305 **Information Technology Management:** Systems Analysis and Design

■ 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 website* (at www.ryerson.ca/curriculumadvising) 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.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

CKCS 191 **Mainframe Computing: Introduction to Mainframe Computing z/OS Environment**

Electives (select 5)

- CKCS 192 **Mainframe Computing: Mainframe Application Programming ASSEMBLER**
- CKCS 193 **Mainframe Computing: Mainframe Application Programming COBOL**
- CKCS 194 **Mainframe Computing: Mainframe Batch Programming JCL**
- CKCS 195 **Mainframe Computing: Mainframe Online Programming: CICS**
- CKCS 196 **Mainframe Computing: Mainframe Database Management Systems DB2**
- CKCS 197 **Mainframe Computing: Websphere Application Server on z/OS**

Certificate in

■ Criminal Justice and Criminology

For additional information about the program, please contact the academic coordinator by email at k.ismaili@ryerson.ca (and CC: a2brinsm@ryerson.ca) or attend an information night.

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

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 202 **Criminal Justice and Criminology:** Victims and the Criminal Process
- CCRM 402 **Criminal Justice and Criminology:** Criminal Justice and Social Inequality
- CCRM 601 **Criminal Justice and Criminology:** Violence in Society

Electives – Both Streams (select one)

- CCRM 304 **Criminal Justice and Criminology:** Youth Justice in Canada
- CPHL 449 **Philosophy:** Issues in the Philosophy of Punishment
- CPHL 612 **Philosophy:** Philosophy of Law
- CPSY 300 **Psychology:** Psychology and Law
- CPSY 602 **Psychology:** Developmental Psychopathology
- CSOC 502 **Sociology:** Violence and the Family

Certificate in

■ 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.

Admission by interview. (See below.)

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

Admission Interview

Individuals seeking admission to the first level courses of this program are required to attend an interview to which they must bring a 12- to 15-item portfolio, demonstrating an aptitude for drawing, painting, and three-dimensional design. Interviews take place during program *Information Nights* (at www.ryerson.ca/ce/infonight). Students may be required to take a drawing skill test. Students who have no previous experience in these must successfully complete Drawing Fundamentals (CDID 803).

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

■ 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

CDMP 120 **Film Studies:** Film History

CDNM 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)

CCMN 314 **Communication:** Professional Presentations

CDFC 102 **Fashion Coordination and Styling:** Fashion Styling

CDFP 385 **Photography:** Digital Tools I

CDID 552 **Lighting Design:** Entertainment Lighting Design

CDMP 114 **Film Studies:** Post-Production Sound

■ Note to registered certificate program students

Technology Electives

CDNM 116, CDNM 214, CDNM 318, and CDNM 541 deleted.

CDMP 114 added.

Certificate in

■ 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

■ Recommended Sequence

CDDM 101
CDDM 102
Electives (five selections)
CDDM 103

Required Courses

CDDM 101 **Design Management: Introduction to Design Management**
CDDM 102 **Design Management: Design Management II**
CDDM 103 **Design Management: Design Management Project**

Electives (select five)

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

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

CENT 500 **Entrepreneurship: New Venture Startup**
CITM 100 **Information 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: Marketing I**

Certificates in 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: Dagmar Rajagopal: drajagop@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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

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

Electives (select three)

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

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

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

■ Note to registered certificate program students Required

CECN 129 replaces CECN 420.

Electives

CECN 321 and CECN 640 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics

■ 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: Dagmar Rajagopal: drajagop@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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 129 **Economics:** Statistics for Economics I
- CECN 204 **Economics:** Introductory Macroeconomics
- CECN 501 **Economics:** Industrial Organization
- CECN 504 **Economics:** Intermediate Microeconomics I

Electives (select three)

- CECN 230 **Economics:** Mathematics for Economics
- CECN 321 **Economics:** Introduction to Law and Economics
- CECN 329 **Economics:** Statistics for Economics II
- CECN 601 **Economics:** The Economics of Information
- CECN 614 **Economics:** An Introduction to Game Theory
- CECN 700 **Economics:** Intermediate Microeconomics II
- CMTH 189 **Mathematics:** Introduction to Mathematics for Economics

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics

■ Introductory International Economics

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: Dagmar Rajagopal: drajagop@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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

Electives (select three)

- CECN 220 **Economics:** Evolution of the Global Economy
- CECN 330 **Economics:** Economic Systems in the New World Economy
- CECN 501 **Economics:** Industrial Organization
- CECN 503 **Economics:** Economic Development
- CECN 606 **Economics:** International Monetary Economics
- CECN 609 **Economics:** European Economic Development
- CECN 707 **Economics:** Economics of International Trade
- CECN 802 **Economics:** The Economies of East Asia

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics

International Economics

The advanced Certificate in International Economics will not be accepting any new registrants. The certificate has been discontinued effective Fall 2008. Students formally registered in the certificate prior to June 30, 2008, must complete the program requirements in effect at the time they registered. For further information, please contact the academic coordinator at 416.979.5000, ext. 7320.

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: Dagmar Rajagopal: drajagop@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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics
- CECN 301 **Economics:** Intermediate Macroeconomics I

Electives (select three)

- CECN 129 **Economics:** Statistics for Economics I
- CECN 503 **Economics:** Economic Development
- CECN 506 **Economics:** Money and Banking
- CECN 600 **Economics:** Intermediate Macroeconomics II
- CECN 605 **Economics:** Labour Economics
- CECN 606 **Economics:** International Monetary Economics
- CECN 715 **Economics:** Advanced Microeconomics
- CECN 802 **Economics:** The Economies of East Asia
- CECN 815 **Economics:** Advanced Macroeconomics

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CECN 104 **Economics:** Introductory Microeconomics
- CECN 204 **Economics:** Introductory Macroeconomics

■ 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: Dagmar Rajagopal: drajagop@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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CECN 104 **Economics:** Introductory Microeconomics
 CECN 204 **Economics:** Introductory Macroeconomics
 CECN 504 **Economics:** Intermediate Microeconomics I

Electives (select three)

- CECN 129 **Economics:** Statistics for Economics I
 CECN 321 **Economics:** Introduction to Law and Economics
 CECN 501 **Economics:** Industrial Organization
 CECN 502 **Economics:** Economics of Natural Resources
 CECN 510 **Economics:** Environmental Economics
 CECN 605 **Economics:** Labour Economics
 CECN 640 **Economics:** The Economics of Immigration
 CECN 700 **Economics:** Intermediate Microeconomics II
 CECN 703 **Economics:** Public Finance I
 CECN 707 **Economics:** Economics of International Trade
 CECN 710 **Economics:** Transportation Economics
 CECN 715 **Economics:** Advanced Microeconomics
 CECN 803 **Economics:** Public Finance II

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CECN 104 **Economics:** Introductory Microeconomics
 CECN 204 **Economics:** Introductory Macroeconomics

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: Dagmar Rajagopal: dradjagop@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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

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 627	Economics: Econometrics I
CMTH 189	Mathematics: Introduction to Mathematics for Economics

Electives (select two)

CECN 504	Economics: Intermediate Microeconomics I
CECN 600	Economics: Intermediate Macroeconomics II
CECN 605	Economics: Labour Economics
CECN 700	Economics: Intermediate Microeconomics II
CECN 702	Economics: Econometrics II

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

CECN 104	Economics: Introductory Microeconomics
CECN 204	Economics: Introductory Macroeconomics

Certificate in

■ 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 without a degree but with an equivalent level of education and experience in environmental science or engineering may be admitted subject to the approval of the academic coordinator.

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

Admissions Process

Applicants must complete an application for pre-approval and be accepted before entering the program. Application forms and general information are available from The G. Raymond Chang School of Continuing Education office, or online at the *Forms and Documents* section, or call 416.979.5035. 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. For further information on the program requirements please contact the Academic Coordinator, Dr. Vadim Bostan, at vbostan@ryerson.ca.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CKES 100 **Environmental Engineering Science:** Environmental Processes (Chemical and Biological Pathways)
- CKES 101 **Environmental Engineering Science:** Atmospheric Processes and Air Pollution
- CKES 102 **Environmental Engineering Science:** Hydrogeology Soil and Ground Water Science
- CKES 104 **Environmental Engineering Science:** Environmental Law

Electives (select four)

- CKES 103 **Environmental Engineering Science:** Data Analysis and Experiment Design
- CKES 110 **Environmental Engineering Science:** Environmental Biotechnology Waste Treatment and Remediation
- CKES 121 **Environmental Engineering Science:** Toxicology and Risk Assessment
- CKES 123 **Environmental Engineering Science:** Hazardous Waste Management
- CKES 125 **Environmental Engineering Science:** Solid Waste Management
- CKES 130 **Environmental Engineering Science:** Applied Ecology
- CKES 140 **Environmental Engineering Science:** Environmental Management Practice
- CKES 150 **Environmental Engineering Science:** Environmental Assessment

■ Note to registered certificate program students

This certificate was revised in Fall 2004. Students who formally registered in the certificate prior to July 1, 2004, 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 program assistant for Engineering, Architecture, and Science at 416.979.5185.

Required

CKES 104 replaces CVMT 102.

Electives

CKES 130 replaces CVMT 103.

CKES 140 replaces CVMT 205.

CKES 150 replaces CVMT 313.

Certificate in

■ 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.

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

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

Electives – Group A (select one)

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

Electives – Group B (select four)

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

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

Corequisite (for students lacking basic computer skills)

- CITM 102 **Information Technology Management:** Business Information Systems I

■ Note to registered certificate program students Required

CDFM 102 replaces CIDE 311.

Electives – Group A

CCMN 432 deleted.

Electives – Group B

CDID 501 and CDID 504 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.

See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

CITM 102 **Information Technology Management: Business Information Systems I**

CCMN 114 **Communication: Short Management Reports**

CACC 100 **Accounting: Introductory Financial Accounting**

CGMS 200 **Management: Introduction to Global 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**

Certificate in

■ 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.

Academic Coordinator: Catherine Moher: cmoher@ryerson.ca; 416.979.5000, ext. 2535.

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

Admission Requirements

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

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

Admission Interview

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

Credits for Related Diplomas

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

Requirements for Graduation

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

Required Courses

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

Electives – Group A (select two)

- CINT 920 Interdisciplinary Studies: Community Collaborations
- CVFS 400 Family Supports: Group Dynamics and Interpersonal Communication
- CVFS 402 Family Supports: Families Power and Social Change
- CVFS 406 Family Supports: Guiding Children's Development
- CVFS 407 Family Supports: Community Development
- CVFS 408 Family Supports: Practicum/Project

Electives – Group B (select one)

Students will choose one course from the following:

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

■ Note to registered certificate program students

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 406 replaces CCLD 103.
CINT 920 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information. Many courses from Electives – Group B are also offered via distance education; please check individual course descriptions.

- CVFS 401 Family Supports: Contemporary Family Issues
- CVFS 403 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

Certificates in Fashion

■ 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

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
- C DFA 104 Fashion: Fashion Drawing I
- C DFA 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 500 Entrepreneurship: New Venture Startup
- CFSN 703 Fashion: Visual Merchandising and Display
- CMKT 100 Marketing: Marketing I

■ Note to registered certificate program students Electives

CCMN 373 replaces CCMN 103 and CCMN 202.
CMKT 502 deleted.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CENT 500 Entrepreneurship: New Venture Startup
- CMKT 100 Marketing: Marketing I

■ Pattern Drafting

The certificate in Pattern Drafting will not be accepting any new registrants. The certificate has been discontinued. Students who formally registered in the certificate prior to July 1, 2007, must complete their program within the required time span. For further information please contact The Chang School at 416.979.5035 or ce@ryerson.ca.

Certificate in

■ Film Studies

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

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

The Chang School showcases the talents and recognizes the skill and dedication of continuing education film studies students at the annual *Peter Gerretsen Film Awards* (see www.ryerson.ca/ce/filmawards for more information).

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of 10 courses (six required courses and four 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

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 223 **Film Studies:** Film Technology II
- CDMP 229 **Film Studies:** Motion Picture Production II
- CDMP 329 **Film Studies:** Motion Picture Production III

Electives (select four courses or 168 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 169 **Film Studies:** Motion Picture Special Effects
- CDMP 209 **Business of Film:** Business of Film – Development
- CDMP 231 **Film Studies:** Short Filmmaking: On Location
- CDMP 232 **Film Studies:** Documentary Filmmaking in Cuba
- CDMP 309 **Business of Film:** Feature Film/Video Distribution
- CDMP 409 **Business of Film:** Movie Marketing
- CDNM 113 **New Media:** Visual Studies I
- CFPN 32A/B **Film Studies:** Directing Screen Performance
- CFPN 33A/B **Film Studies:** Screen Writing
- CFPN 531 **Film Studies:** Cinematography and Lighting Design I

Note to registered certificate program students

Electives

CDMP 13A/B, CDMP 116, CDMP 218, CDNM 116, CFPN 541, and CFPN 542 deleted.
 CDMP 114, CDMP 125, CDMP 126, CDMP 232, and CFPN 531 added.

**Summer Film School
(CDMP 999)**

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

Certificate in

Food Security

This certificate provides learning opportunities relevant primarily to the work of civil society organizations and public sector agencies related to food security in Canada and worldwide. It is designed to prepare graduates to articulate food security and related concepts, assess and monitor for food security, identify and generate solutions for food insecurity, and design programs, services, and policies to achieve food security at the individual, household, community, or national level.

Academic Coordinator: Reg Noble: food@ryerson.ca.

For detailed certificate and program information, please visit 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Admission Assessment

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

Electives (select three)

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

- CFND 401 **Foods:** Social and Cultural Dimensions of Food
- CFNF 100 **Family Studies:** Families and Health
- CFNN 111 **Nutrition:** Nutrition for Nursing Practice
- CFNN 404 **Nutrition:** Special Topics in Global Nutrition
- CFNP 400 **Professional Practice:** Reflective Practice
- CFNR 400 **Research Methods:** Independent Study
- CFNY 400 **Food Security:** Selected Topics in Food Security
- CFNY 406 **Food Security:** Economics of Food Security
- CFNY 407 **Food Security:** Community Development and Food Security
- CFNY 408 **Food Security:** Urban Food Security
- CFNY 409 **Food Security:** Gender and Food Security
- CINT 912 **Interdisciplinary Studies:** Community Development: International Field Experience
- CSOC 808 **Sociology:** Food and Foodways
- CVFN 233 **Food Security:** How Safe Is Our Food?
- CVFN 410 **Food Security:** Understanding Urban Agriculture
- CVFN 411 **Food Security:** Dimensions of Urban Agriculture
- CVFN 412 **Food Security:** Urban Agriculture Types
- CVFN 413 **Food Security:** Urban Agriculture Policy-Making

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

■ Note to registered certificate program students Electives

- CFNN 112 deleted.
- CFNY 409 (formerly CVFN 409), CVFN 410, CVFN 412, and CVFN 413 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de* for more information for more information.

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

■ Course Delivery Schedule

	Fall 2009	Winter 2010	Spring 2010
Required			
CFNY 403	I	I	
CFNY 404	I		I
CFNY 405	I	I	
Electives			
CFND 401			
CFNN 111			I
CFNP 400			
CFNR 400			
CFNY 400			CI
CFNY 406			
CFNY 407			I
CFNY 408		I	
CFNY 409	I		
CINT 912			
CSOC 808			
CVFN 233			
CVFN 410			I
CVFN 411	I		
CVFN 412		I	
CVFN 413			

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.

Certificate in

■ 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: cmann@ryerson.ca

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

■ Recommended Sequence

New students are encouraged to begin with CINT 916.

Required Courses

- CINP 912 **Nonprofit: Marketing and Fundraising**
- CINT 916 **Interdisciplinary Studies: Introduction to Fundraising**
- CVFM 201 **Fundraising Management: Planning, Management, and Professionalism in Fundraising**

Electives (select three)

- CVFM 202 **Fundraising Management: Donor Centered Fundraising**
- CVFM 203 **Fundraising Management: The Fundraising Campaign**
- CVFM 301 **Fundraising Management: Gift Planning**
- CVFM 302 **Fundraising Management: Corporate Special Event and Entrepreneurial Fundraising**

■ Note to registered certificate program students

CINT 916 replaces CVFM 100.

Certificates in Geography and GIS

■ Geotechnology for Teachers

The Certificate in Geotechnology for Teachers will not be accepting any new registrants. The certificate has been discontinued effective Fall 2009. Students formally registered in the certificate prior to June 30, 2009, must complete the program requirements in effect at the time they registered. For further information, please contact Don Kendal, the Academic Coordinator at 416.979.5000, ext. 7149.

■ Applied Digital Geography and GIS

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: Don Kendal: dkendal@geography.ryerson.ca; 416.979.5000, ext. 7149.

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 Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

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

Electives (select a total of four courses)

Electives – Group A (select one or two)

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

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

Electives – Group B (select two or three)

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

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

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

■ Note to registered certificate program students

Required Courses

- CODG 101 replaces CODG 100.
- CODG 102 replaces CODG 110.

Electives – Group A

- COGT 120 deleted.
- CODG 127 added.

Electives – Group B

- CODG 136 and option of taking a course from the First Level of the Advanced Certificate in Applied Digital Geography and GIS added.

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

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

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

■ Advanced Applied Digital Geography and GIS

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

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

Academic Coordinator: Don Kendal: dkendal@geography.ryerson.ca; 416.979.5000, ext. 7149.

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 Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses – First Level (select four or five)

- 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

One course not previously taken from the Group B Electives in the Certificate in Applied Digital Geography and GIS

Required Courses – Second Level (select one or two)

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

Certificate in

■ 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 Certificate in Gerontology will provide individuals with many learning opportunities:

- social and political implications of aging in Canada and around the world
- methods and developing theories used to study aging
- biological, psychological, and sociological changes that accompany aging
- impact of health, disease, and disability on the aging process
- role of social structures (healthcare, education, family), law and advocacy, retirement and economics, leisure pursuits, cognitive and physical activities, and death and dying, on the process of aging at both the level of the individual and society.

The program draws faculty from many schools and departments within Ryerson, including Nursing, Social Work, Nutrition, Sociology, Politics, 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.

Academic Coordinator: Pria Nippak: pnippak@ryerson.ca

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of eight 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

■ 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: Introduction to Aging Part I**
- CVGE 141 **Gerontology: Introduction to Aging Part 2**
- CVGE 205 **Gerontology: Research and Practice**

Electives (select four)

- CFNF 401 **Family Studies:** Canadian Family: Diversity and Change
 CGER 298 **Gerontology:** Ability, Disability and Aging
 CINT 904 **Interdisciplinary Studies:** Health Promotion and Community Development
 COPS 608 **Psychology:** Psychology of Aging
 CPSY 402 **Psychology:** Adult Development
 CPSY 802 **Psychology:** Death, Dying, and Bereavement
 CSOC 606 **Sociology:** Work and Families in the 21st Century
 CVGE 202 **Gerontology:** Intergenerational Relations
 CVGE 271 **Gerontology:** Consent, Capacity and Decision Making
 CVGE 272 **Gerontology:** Law and Aging
 CVGE 291 **Gerontology:** Environmental Design
 CVGE 296 **Gerontology:** Comparative Gerontology
 CVGE 297 **Gerontology:** Aging and Interpersonal Skills
 CVLT 102 **Long Term Care:** Principles of Long Term Care Service Delivery

■ Note to registered certificate program students**Electives**

CACS 401, CENT 500, CFNF 400, CMHR 405, CMKT 100, and CVGE 292 deleted.
 CINT 904, CPSY 402, CPSY 802, CSOC 606, and CVLT 102 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CINT 901 **Interdisciplinary Studies:** Gerontology: Critical Issues and Future Trends
 CVGE 140 **Gerontology:** Introduction to Aging Part I
 CVGE 141 **Gerontology:** Introduction to Aging Part 2
 CVGE 205 **Gerontology:** Research and Practice
 CINT 904 **Interdisciplinary Studies:** Health Promotion and Community Development

Certificate in**■ Graphic Communications**

This program is of particular interest to individuals who wish to enhance their ability to advance within the industry or to those who are seeking the knowledge and skills necessary to make a career change into the graphic communications industries.

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. Admission by interview.

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

Admission Interviews

A program admission interview is necessary prior to the first registration in one of these courses. Upon admission to the program, no further interviews are necessary.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

CDGA 651	Graphic Communications: Graphic Communications Processes
CGRA 102	Graphic Communications: Layout and Typography I
CGRA 103	Graphic Communications: Introductory Premedia
CGRA 104	Graphic Communications: Printing Processes I
CGRA 116	Graphic Communications: Estimating in the Graphic Arts
CGRA 204	Graphic Communications: Printing Processes II
CGRA 230	Graphic Communications: Selling in the Graphic Arts
CMKT 100	Marketing: Marketing I

■ Note to registered certificate program students

CGRA 102 and CGRA 202 replace CGRA 012.

CGRA 103 and CGRA 203 replace CGRA 013.

CGRA 104 and CGRA 204 replace CGRA 014.

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 CMGT 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 Program Assistant, Anne Grady at agrady@ryerson.ca.

Distance Education

The following course is available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

CGRA 116	Graphic Communications: Estimating in the Graphic Arts
CMKT 100	Marketing: Marketing I

Certificate in

■ Health Services Management

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

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 Contemporary Business 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 102 **Long Term Care:** Principles of Long Term Care Service Delivery
- CVLT 401 **Long Term Care:** Project Management in Long Term Care Administration
- CVLT 502 **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.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CCMN 279 **Communication:** Introduction to Contemporary Business 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 437 **Health Services Management:** Human Resources Management
- CHSM 306 **Health Services Management:** Management Leadership and Decision-Making
- CHSM 417 **Health Services Management:** Research Methodology
- CVLT 502 **Long Term Care:** Trends in Long Term Care Service Delivery

Certificate in

■ Hospitality and Tourism Management

Important Note

The Certificate in Hospitality and Tourism Management has been discontinued. Students formally registered in the certificate prior to June 30, 2008, must complete the program requirements in effect at the time they registered. For further information, please contact the Academic Coordinator, Ruth Andrews, at 416.979.5000, ext. 5114.

Certificate in

■ Human Resources Management

This certificate program provides comprehensive education in current human resources management techniques. It is ideal for human resources management professionals who wish to expand or update their skills, and for those seeking employment in the human resources field.

Many of the courses in the Human Resources Management certificate program may qualify for exemptions in the Certified Human Resources Professional (CHRP) designation offered by the Human Resources Professionals Association (HRPA), see www.hrpa.ca.

Admission Requirements

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

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills
- CMHR 523 **Human Resources:** Human Resources Management

Electives (select four)

- CACC 100 **Accounting:** Introductory Financial Accounting
- CLAW 529 **Law:** Employment and Labour Law
- CMHR 505 **Human Resources:** Organizational Behaviour II
- CMHR 522 **Human Resources:** Industrial Relations
- CMHR 600 **Human Resources:** Diversity and Equity in the Workplace
- CMHR 623 **Human Resources:** Recruitment and Selection (Staffing)
- CMHR 711 **Human Resources:** Occupational Health and Safety
- CMHR 733 **Human Resources:** Training and Development
- CMHR 749 **Human Resources:** Compensation Management
- CMHR 849 **Human Resources:** Human Resources Planning

■ 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

CCMN 279, CECN 104, CFIN 300, COHS 208, COHS 718, and CQMS 102 deleted.
CMHR 505, CMHR 522, CMHR 711, CMHR 749 and CMHR 849 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills
- CACC 100 **Accounting:** Introductory Financial Accounting

Certificate in

■ 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: rhonda.abrams@gmail.com

Photography Studies Coordinator: Dennis Miles: dmiles@ryerson.ca

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of eight single-term (or equivalent) courses is required for the certificate, as listed in each option.

Certificate Registration

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

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 on the Chang School website* at www.ryerson.ca/ce).

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:** Techniques of Photography I

CDFP 321 **Photography:** Techniques of Photography II

CDFP 385 **Photography:** Digital Tools I

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 110 and CDNM 210 (from Set B) have become required courses in all specializations.

CDMP 129 replaces CDMP 12A/B and CDMP 012.

CDMP 129 is a multi-term course.

Specialization in New Media

CDNM 112, CDNM 116, CDNM 212, CDNM 214, and CDNM 322 deleted.

CDNM 109, CDNM 209, CDNM 121, and CDNM 221 added.

Certificates in Information Systems

■ Information Systems Development

The activities associated with information systems development form the basis for any IT solution. This certificate will be of interest to students who are already in the field of IT and who wish to gain additional knowledge in the area of information systems development, but it does not preclude those with no IT background who are interested in this area. It will also provide a solid grounding for those wishing to pursue professional certification.

For further information about the program, please contact The G. Raymond Chang School of Continuing Education, Business, 416.979.5035, or attend a program information night.

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 is required.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CITM 200 Information Technology Management: Fundamentals of Programming
- CITM 305 Information Technology Management: Systems Analysis and Design
- CITM 430 Information Technology Management: System Design and Implementation
- CITM 445 Information Technology Management: Multimedia in Business
- CITM 500 Information Technology Management: Logical Database Analysis and Design
- CITM 540 Information Technology Management: Web-based Applications Development

■ 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 445 and CITM 540 added.
CITM 320, CITM 406, and CITM 605 deleted.

Electives

CITM 300, CITM 420 and CITM 525 deleted.
CITM 430 is now a Required Course.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CITM 305 Information Technology Management: Systems Analysis and Design

■ Information Systems Management

Virtually every type of business today relies on information technology. Whether banking online, ordering a pizza, monitoring patients in a hospital, or publishing a newspaper, organizations must develop systems that serve their customers and help them succeed. Computers, the Internet, wireless communications, databases – all are forms of information technology which are used to collect, analyze, and share information. Information systems management examines how this technology can be used effectively in an ever-changing business context. Courses focus on how to develop and manage information systems to meet the strategic needs of business and government. This certificate stands alone as an introduction to the IT management field, but it also provides a smooth transition either to another more specialized certificate or to the Information Technology Management degree program. All courses can be credited toward Ryerson's Bachelor of Commerce (Information Technology Management) degree program.

For further information about the program, please contact The G. Raymond Chang School of Continuing Education, Business, 416.979.5035, or attend a program information night.

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 is required.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CITM 100 Information Technology Management: Business and Information Systems
- CITM 305 Information Technology Management: Systems Analysis and Design
- CITM 410 Information Technology Management: Business Process Design

Electives (select three)

- CITM 200 Information Technology Management: Fundamentals of Programming
- CITM 301 Information Technology Management: Introduction to IT Infrastructure
- CITM 350 Information Technology Management: Concepts of e-Business
- CITM 407 Information Technology Management: Info Tech, Ethics, and Society
- CITM 500 Information Technology Management: Logical Database Analysis and Design
- CITM 750 Information 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

CITM 410 replaces CITM 505,

Electives

CITM 350 replaces CITM 330.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CITM 100 Information Technology Management: Business and Information Systems
- CITM 305 Information Technology Management: Systems Analysis and Design
- CITM 350 Information Technology Management: Concepts of e-Business

Certificates in Interior Design

■ Fundamentals of Interior Design

This certificate is intended for individuals interested in the fundamentals of interior design. Students should be aware that professional interior designers require membership in the Association of Registered Interior Designers of Ontario (visit the ARIDO website at 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. This certificate is designed for individuals with various goals:

- 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 certificates
- those who have a general interest in interior design

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. Admission by interview (see below).

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

Admission Interview

Individuals seeking admission to the first-level courses of this program are required to attend an *interview* to which they must bring a 12- to 15-item portfolio, demonstrating an aptitude for drawing and for two- and three-dimensional creative design. 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.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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. 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

CDID 151	Interior Design: Interior Design I: Drafting
CDID 152	Interior Design: Interior Design I: Space Planning
CDID 153	Interior Design: Interior Materials and Finishes
CDID 155	Interior Design: Design Dynamics I: Portfolio 1
CDID 156	Interior Design: Design Dynamics I: Portfolio 2
CIRC 102	Interior Design: Communications I
CIRC 103	Interior Design: Communications II
CIRH 101	Interior Design: History of Design I

Electives (select one)

Liberal Studies Elective: The equivalent of a single-term course selected from the lower-level group.

Liberal Studies courses are indicated by a "LL" for Lower Level and "UL" for Upper Level. Consult the undergraduate calendar at www.ryerson.ca/calendar for the complete list of Liberal Studies courses, and use the Course Finder Tool on the Chang School website at www.ryerson.ca/ce to search for your course by subject, term, time, or teaching mode.

■ Note to registered certificate students Required Courses

CIRC 102 and CIRC 103 replace CIRC 101.

■ Advanced Fundamentals of Interior Design

The Certificate in Advanced Fundamentals of Interior Design will not be accepting any new registrants. The certificate has been discontinued effective Fall 2009. Students formally registered in the certificate prior to June 30, 2009, must complete the program requirements in effect at the time they registered. For further information, please contact the Academic Coordinator, Michael Plasse-Taylor, at 416.979.5000, ext. 6928.

Certificate in

■ Landscape Design

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 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. Visit www.ryerson.ca/ce/landscape to view the Transition Plan and Landscape Design Changes Presentation.

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

Admission Requirements

Applicants admitted to this program will normally possess a post-secondary undergraduate education (university or college) in a relevant field of study including programs related to architecture and or environmental sciences or mature student status with relevant work experience.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Note: the Information Night 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 Academic Coordinator, Professor Margery Winkler, at mwinkler@ryerson.ca or 416.979.5000, ext. 6490.

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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Sample Certificate Completion Models

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

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. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CKLA 310 **Landscape Design:** Landscape Construction, Materials and Methods
- CKLA 320 **Landscape Design:** Plant Materials
- CKLA 410 **Landscape Design:** Horticultural Science

Course Delivery Schedule

	Fall 2009	Winter 2010	Spring 2010
Required			
CKLA 300		T,C	
CKLA 310		I	C
CKLA 320	T,C	I	
CKLA 330	C		
Electives			
CKLA 400			C
CKLA 410	I	C	
CKLA 420		C	
CKLA 430		C	
CKLA 440	C		
CKLA 450	C		

C = Classroom

I = Distance: Internet

T = Toronto Botanical Garden (TBG)

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

Certificates in Languages

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 510 with a minimum grade of C+, or admission by *placement assessment and interview*.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 515 or CFRE 610. A student may be admitted to a higher level by interview, but must successfully complete a minimum of five single-term credit courses, with a cumulative grade point average of 2.00 or higher, to obtain the certificate. A student granted an exemption from taking CFRE 515 or CFRE 610 will need to complete five higher-level courses.

Certificate Registration

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

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses (select six)

Students may select only one of CFRE 515 or CFRE 610.

- CFRE 502 French: Advanced Business French I
- CFRE 507 French: English-French Translation I
- CFRE 510 French: Advanced Grammar and Writing I
- CFRE 515 French: Introduction to Business French
- CFRE 602 French: Advanced Business French II
- CFRE 607 French: English-French Translation II
- CFRE 610 French: Advanced Grammar and Writing II
- CFRE 707 French: Introduction to French-English Translation

■ Note to registered certificate program students

CFRE 515 replaces CFRE 510.

■ English as a Second/Additional Language

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 (at www.ryerson.ca/ce/languages) or interview to determine the appropriate level of study for each student is required for admission to these courses.

Admission Requirements

Admission to the certificate program is by written placement assessment and oral interview during which students' fluency, listening comprehension, communication strategies, and 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 (at www.ryerson.ca/ce/languages) for admission.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 equaling six certificate credits as recommended and approved by the ESL/EAL program director

If at the commencement of the certificate the student is ranked at the Second Level in the placement assessment, the successful completion of four single-term courses from the Second Level is required for the certificate. Students may elect to take the certificate fully online using the following courses: CLNG 100, CLNG 200, COEN 296, and COEN 461.

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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

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

- 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
- COEN 299 English as a Second/Additional Language: Effective Conversation Strategies
- COEN 301 English as a Second/Additional Language: Pronunciation
- COEN 460 Academic and Professional Skills – ESL/EAL: Upper Intensive

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 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: Language: Spoken and Written
- COEN 296 English as a Second/Additional Language: Industry-Specific Writing for Professionals
- COEN 298 English as a Second/Additional Language: Scientific and Technical Writing
- COEN 304 English as a Second/Additional Language: Advanced Grammar
- COEN 306 English as a Second/Additional Language: ESL/EAL: Oral Communication for Professionals
- COEN 311 English as a Second/Additional Language: Integrated Skills I
- COEN 312 English as a Second/Additional Language: Integrated Skills II
- COEN 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 298, COEN 311, COEN 312, CLNG 300, and COEN 461 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- 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
- COEN 296 English as a Second/Additional Language: Industry-Specific Writing for Professionals
- COEN 461 Academic and Professional Skills – ESL/EAL: Upper Advanced Intensive

■ 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 401, the successful completion of four single-term credit courses is required for the certificate. All four courses must be at the advanced level (CFRE 501 or higher).

Certificate Registration

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

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses (see Advanced Placement above)

- CFRE 201 French: Introductory French II
- CFRE 301 French: Intermediate French I
- CFRE 401 French: Intermediate French II
- CFRE 501 French: Speaking and Writing French I
- CFRE 601 French: Speaking and Writing French II

Advanced Level Electives (select one)

- CFRE 402 French: French Conversation and Pronunciation
- CFRE 502 French: Advanced Business French I
- CFRE 505 French: Language and Culture I
- CFRE 507 French: English-French Translation I
- CFRE 508 French: Intro to 20th C French Literature I
- CFRE 509 French: Franco-Canadian Literature I
- CFRE 510 French: 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: French for Today I
- CFRE 704 French: Intro to Franco-Canadian Culture I
- CFRE 707 French: Introduction to French-English Translation
- CFRE 801 French: French 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.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website at www.ryerson.ca/ce*).

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 on the Chang School website at www.ryerson.ca/ce*).

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 515	Spanish: Introduction to Business Spanish
CSPN 702	Spanish: Advanced Business Spanish
CSPN 704	Spanish: Introduction to Latin American Culture I
CSPN 708	Spanish: Contemporary Spanish Fiction
CSPN 710	Spanish: Spanish of Spain and Latin America
CSPN 804	Spanish: Introduction to Latin American Culture II
CSPN 810	Spanish: Cultural Context of Writing

■ Note to registered certificate program students

Electives

CSPN 515 and CSPN 702 added.

Certificate in

■ 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. Admission by interview.

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

Admission Interview

Students should bring a resumé and a copy of their academic record. Interviews take place during Program *Information Nights* (at www.ryerson.ca/ce/infonight). The information session also provides an opportunity for students to ensure that their expectations and abilities are appropriate for the program.

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 Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

- CDID 501 **Lighting Design:** Lighting Fundamentals
- CDID 502 **Lighting Design:** Human Factors in Lighting
- CDID 503 **Lighting Design:** Introduction to Lighting Design
- CDID 504 **Lighting Design:** Lighting Energy Management
- CDID 550 **Lighting Design:** Introduction to Daylighting Design
- CDID 551 **Lighting Design:** Advanced Lighting Design

Electives (select one)

- CDID 552 **Lighting Design:** Entertainment Lighting Design
- CDID 553 **Lighting Design:** Lighting Design Practicum
- CDID 554 **Lighting Design:** Lighting Research Practicum

Certificate in

■ Magazine Publishing

The Certificate in Magazine 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 Publishing certificate program.

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

Advisory Board for This Certificate:

Doug Bennet, Publisher, *Masthead* (chair)

Phil Boyd, President, Canadian Business Press

Cynthia Brouse, freelance magazine writer and editor

Anne Gibson, Editor, *Where Toronto*

Jacqueline Howe, V.P. and Group Publisher, Transcontinental Media

Mark Jamison, CEO, Magazines Canada

Doug Knight, President, St. Joseph Media

Todd Latham, President, We Communications and Publisher, *ReNew Canada*

Colleen Moloney, Director, The CM Group

Charles Oberdorf, Academic Coordinator

Deb Rosser, Rogers Media

Admission Requirements

Undergraduate degree, or mature student status with acceptable professional experience in publishing or a related field is required. Admission by interview (see below).

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

Admission Interview

You may take individual courses without pursuing the certificate, but all applicants seeking admission to courses in this program are required to arrange for an interview.

Applicants who are currently working at a magazine may attend an information night, or may contact the Program Assistant, Anne Grady, at agrady@ryerson.ca or 416.979.5180.

Applicants who have not previously worked in the magazine industry must attend an information night and are asked to bring a one-page, double-spaced essay they have written describing why they wish to study Magazine Publishing. (Applicants are also free to bring published writing, resumés, or other documents in support of their application.)

After an applicant has been accepted into the program, no further interviews are required for enrollment in Magazine Publishing courses. Most courses in the program will serve as the required prerequisite for any other Magazine Publishing course (*except one – Advanced Magazine Writing (CDJN 118)*).

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

Courses need not be taken in any particular order.

CDJN 112 Magazine Publishing: The Business of Magazine Publishing

CDJN 113 Magazine Publishing: Magazine Editing

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

42-Hour Courses

CDJN 116 Magazine Publishing: Introduction to Magazine Design

CDJN 117 Magazine Publishing: Magazine Writing (Staff and Freelance)

CDJN 118 Magazine Publishing: Advanced Magazine Writing

CDJN 119 Magazine Publishing: Magazine Copy Editing

CDJN 205 Magazine 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 Publishing: Magazine Fact-Checking and Research

CDJN 121 Magazine Publishing: Editing Service Journalism

CDJN 122 Magazine Publishing: Substantive Editing for Magazines

CDJN 201 Magazine Publishing: Magazine Advertising Sales

CDJN 202 Magazine Publishing: Magazine Marketing and Circulation

CDJN 203 Magazine Publishing: Interviewing for Magazine Journalists

CDJN 204 Magazine Publishing: Layout Software for Magazine Editors

CDJN 206 Magazine Publishing: Creating Website Editorial

So You Want to Start a Magazine? (CDJN 101)

How to have a smart launch and long-term success

Launching a magazine is an exciting and rewarding thing to do, but the process – from developing a concept to day-to-day business management – is more complicated than it seems.

Join us for an intensive two-day course that emphasizes all the practical aspects of launching a magazine in today's highly competitive market. If you are thinking of starting up a magazine, you will gain from the experience and insights of an expert and save time and money.

Visit www.ryerson.ca/ce/startamagazine for details.

Certificate in

Marketing Management

This program is designed to help individuals enter or advance in the marketing field by developing their marketing knowledge and skills through many applied activities.

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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. 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Precursors (must be taken before all other Marketing courses)

CMKT 100 must be taken before CMKT 300.

- CMKT 100 Marketing: Marketing I
- CMKT 300 Marketing: Marketing Metrics and Analysis

Required Courses

- CMKT 400 Marketing: Understanding Consumers and the New Media
- CMKT 500 Marketing: Marketing Research
- CMKT 600 Marketing: Integrated Case Analysis

Electives (select three)

- CACC 100 Accounting: Introductory Financial Accounting
- CGMS 522 Management: International Marketing
- CITM 350 Information Technology Management: Concepts of e-Business
- CMKT 510 Marketing: Innovations in Marketing
- CMKT 700 Marketing: Business Intelligence/Decision Modeling
- CQMS 102 Quantitative Methods: Business Statistics I

■ Note to registered certificate program students

Effective Fall 2009, the Certificate in Marketing Management will be revised to better prepare you for current and future work in the field.

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 will be phased out over the 2009-2010 academic year.**

Students formally registered in the certificate from July 1, 2009 and after, must successfully complete the curricula outlined here in order to meet graduation requirements. **Note: Not all of the courses from the new certificate will be available during the 2009-2010 academic year.**

For further information, please view the transition plan online at www.ryerson.ca/ce/marketing or call us at 416.979.5035.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CMKT 100 Marketing: Marketing I
- CMKT 300 Marketing: Marketing Metrics and Analysis
- CACC 100 Accounting: Introductory Financial Accounting
- CITM 350 Information Technology Management: Concepts of e-Business

Certificate in

■ Nonprofit and Voluntary Sector Management, Interdisciplinary Studies in

Ryerson has created this distinctive, interdisciplinary certificate program in response to a growing demand for education that focuses on the specialized needs of the sector.

This program is the first undergraduate university certificate program in nonprofit sector management in Canada. It is affiliated with Ryerson's Centre for Voluntary Sector Studies, which provides a dynamic link to the sector through research, consultation, and educational programming. This unique program offers the following:

- an interdisciplinary curriculum pooling knowledge from three academic disciplines: business management, public administration, and social work
- a practical blend of theory and application taught by academics and practitioners
- a wide range of current and relevant courses covering key areas such as marketing, financial management, fundraising, advocacy, strategic planning, program evaluation, organizational management, and organizational change

Courses are available in a variety of formats including distance via the Internet.

Who Will Benefit

- managers, staff, practitioners and volunteers of nonprofit organizations
- those interested in pursuing careers in the nonprofit sector
- those interested in developing partnerships with nonprofit organizations

Program Information: Email The G. Raymond Chang School of Continuing Education at ce@ryerson.ca, or phone 416.979.5035. **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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CINP 900 Nonprofit: Intro to the Nonprofit / Voluntary Sector
- CINP 901 Nonprofit: Developing Effective Organizations
- CINP 902 Nonprofit: Program Evaluation
- CINP 920 Nonprofit: Critical Issues

Electives (select four)

- CINP 910 Nonprofit: Strategic Planning
- CINP 911 Nonprofit: Advocacy and Governmental Relations
- CINP 912 Nonprofit: Marketing and Fundraising
- CINP 913 Nonprofit: Leading Through Change
- CINP 914 Nonprofit: Diversity and Conflict Resolution
- CINP 915 Nonprofit: Financial Management
- CINP 916 Nonprofit: NGOs and World Governance

Distance Education

All courses in this certificate are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de* for more information. Distance education offerings are shown in the following chart.

■ Course Delivery Schedule

	Fall 2009	Winter 2010	Spring 2010
Required			
CINP 900		C/D	
CINP 901	C/D		
CINP 902		H/D	
CINP 920			D
Electives			
CINP 910		H/D	
CINP 911			
CINP 912	C/D		
CINP 913		H/D	
CINP 914	H/D		
CINP 915	H/D		
CINP 916			C/D

C = Classroom

D = Distance

H = Hybrid (classroom/Internet combined)

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

For further delivery schedules, visit the Chang School website at www.ryerson.ca/ce.

Certificate in

■ Leadership and Management for Nurses

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 (see Forms and Documents at www.ryerson.ca/ce) 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 individual course descriptions on the Chang School website.

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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CNUR 805 Nursing: The Evolution of Theoretical Knowledge
- CNUR 830 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 505 Human Resources: Organizational Behaviour II
- CMHR 522 Human Resources: Industrial Relations
- CMHR 523 Human Resources: Human Resources Management
- CMHR 600 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 505 without having completed the prerequisite, CMHR 405.

Two of CMHR 505, 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 320 Nursing: Health Law
- CVNU 321 Nursing: Financial Management
- CVNU 322 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 320, CVNU 321, or CVNU 322) 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. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- 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
- CVNU 317 Nursing: Health and Social Policy
- CVNU 322 Nursing: Computer and Information Management in Nursing

Certificate in

■ Advanced Neuroscience-Stroke Care

This 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.

Academic Coordinator: 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 years' related professional experience in neuroscience-stroke care.

If an applicant has experience in neuroscience-stroke care and/or is in the process of completing a baccalaureate degree or equivalent, the academic coordinator 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Admission Interview

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

CVNS 600	Neuroscience: Critical Appraisal of Evidence
CVNS 620	Neuroscience: Health Promotion Paradigms
CVNS 630	Neuroscience: Brain Structures and Cognition
CVNS 640	Neuroscience: Neuro-Stroke Assessment
CVNS 650	Neuroscience: Client Stroke Rehabilitation Recovery
CVNS 660	Neuroscience: Leadership in Stroke Care

Certificates in Occupational Health and Safety

■ 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 Community Services area at 416.979.5000, ext. 5183.

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

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

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 website (at www.ryerson.ca/curriculumadvising)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

Distance Education

The following courses are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CHSM 408 **Health Services Management: Program Planning and Evaluation**

Occupational Health and Safety

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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

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 322 **Public Administration:** Canadian Public Administration I

Note: Many of the courses are offered in an intensive format. See course descriptions for additional information.

Distance Education

All courses in this certificate are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

■ Advanced Safety Management

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

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

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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

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

Distance Education

All courses in this certificate are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

Certificate in

■ 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.

Admission Requirements

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

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

Advanced Standing

Mature students may be eligible on the basis of work experience in a relevant field. Applicants possessing higher qualifications will be considered for advanced standing on individual merits.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of 10 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Equipment/Facilities Use

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

Required Courses

Choose the Traditional or Digital Stream.

Traditional Stream

- CDFP 320 Photography: Techniques of Photography I
- CDFP 321 Photography: Techniques of Photography II
- CDFP 391 Photography: History of Photography

Digital Stream

- CDFP 383 Photography: Digital Capture I
- CDFP 384 Photography: Digital Capture II
- CDFP 391 Photography: History of Photography

Electives (select seven)

- CDFP 322 Photography: Art Direction/Design Techniques
- CDFP 332 Photography: Digital Printing
- CDFP 381 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 397 Photography: Twentieth Century Photography
- CDFP 398 Photography: History of Photography II
- CFPN 532 Photography: Advanced Studio Lighting
- CFPN 536 Photography: Media Business Studies
- CNPF 549 Photography: Theories of Photography – Contemporary Topics

■ 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.

Digital Stream

CDFP 383 and CDFP 384 added.

Electives

CDFP 323, CDFP 331, CDFP 325, CDFP 366, CDFP 395, CDFP 396, CDFP 399, CDFP 410, and CDFP 921 deleted.
CDFP 332, CDFP 382, CDFP 381, CDFP 397, CDFP 398, and CFPN 536 have been added.

Certificate in

■ Physical Activity: Assessment and Promotion

This program provides dietetic and nutrition practitioners with a unique interdisciplinary perspective on human movement. It offers knowledge and tools necessary to approach physical activity using the population health framework. Topics include exercise physiology, physical assessment, social aspects of health and activity, exercise for chronic disease and body weight management, healthy development and aging, and methodology to create active environments and lifestyles.

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

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Admission Application

Students seeking admission to this program are required to submit an application for pre-approval to the academic coordinator for the Certificate in Physical Activity: Assessment and Promotion. To obtain an application, visit the *Forms and Documents* section. The completed application, together with transcripts, may be presented to the academic coordinator at one of the *Information Nights* (at www.ryerson.ca/ce/infonight), or mailed to the address on the form.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

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 and Disease
- 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

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

Electives

CFNA 303, CFNA 304, and CFNA 305 deleted, thereby eliminating the Elective group and thus reducing the number of courses in the certificate from eight to six.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CFNA 300 **Physical Activity:** Nutrition and Physical Activity

Certificate in

■ Project Management

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 (www.soc.pmi.on.ca).

For additional information about the program, please contact the program assistant at 416.979.5185 or attend an information night.

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

Important note to students who formally registered in the certificate prior to July 1, 2006: If you registered in the Certificate in Project Management prior to July 1, 2006, you must complete the program requirements that were in effect at the time you registered or if you wish to acquire a certificate specialization by fulfilling the requirements of the new certificate, please see the Transition Plan at www.ryerson.ca/ce/pm.

Certificate Specializations

- Architecture, Engineering, and Construction (AEC)
- Business and Information Management
- Community and Health Services Management
- Project Management (General)

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

■ 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.

- CITM 750 Information Technology Management: IT Project Management
- CKPM 202 Project Management: Fundamentals of Project Management

Core Program, Required Courses

- CKPM 203 Project Management: Planning and Scheduling
- CKPM 209 Project Management: Project Risk and Quality Management
- CKPM 211 Project Management: Leadership in Project Management
- CKPM 212 Project Management: Project Cost and Procurement Management

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

Business and Information Management Stream, Required Courses

- CITM 305 Information Technology Management: Systems Analysis and Design
- CITM 410 Information Technology Management: Business Process Design

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

Project Management General Stream, Required Courses

- CCMN 114 **Communication:** Short Management Reports
 CKPM 207 **Project Management:** Project Management Systems
 CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills

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

Electives – All Streams (select one)

- CCMN 114 **Communication:** Short Management Reports
 CHSM 306 **Health Services Management:** Management Leadership and Decision-Making
 CINT 905 **Interdisciplinary Studies:** Conflict Resolution and Dispute Negotiation
 CITM 505 **Information Technology Management:** Managing Information Systems
 CKPM 207 **Project Management:** Project Management Systems
 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 program assistant for Engineering, Architecture, and Science at 416.979.5185.

Electives

CITM 724 and CPLE 895 deleted.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

- CKPM 202 **Project Management:** Fundamentals of Project Management
 CKPM 203 **Project Management:** Planning and Scheduling
 CKPM 209 **Project Management:** Project Risk and Quality Management
 CKPM 211 **Project Management:** Leadership in Project Management
 CKPM 212 **Project Management:** Project Cost and Procurement Management
 CCMN 114 **Communication:** Short Management Reports
 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
 CITM 305 **Information Technology Management:** Systems Analysis and Design
 CCMN 114 **Communication:** Short Management Reports
 CHSM 306 **Health Services Management:** Management Leadership and Decision-Making
 CINT 905 **Interdisciplinary Studies:** Conflict Resolution and Dispute Negotiation
 CMHR 405 **Human Resources:** Organizational Behaviour and Interpersonal Skills

Certificates in Psychology

■ 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses (students may complete only one of CPSY214 or CPSY 215)

- 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)

- CPSY 302 Psychology: Child Development
- CPSY 602 Psychology: Developmental Psychopathology
- CPSY 605 Psychology: Psychology of Health and Health Care
- CPSY 621 Psychology: Psychology of Human Sexuality
- CPSY 802 Psychology: Death, Dying, and Bereavement
- CPSY 805 Psychology: Adjustment, Stress and Coping
- CPSY 806 Psychology: Behaviour Modification
- CPSY 808 Psychology: Community Psychology
- CPSY 961 Psychology: Thesis Project I

■ 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. Electives Group C becomes Group B. COPS 606 was deleted, therefore making it necessary to combine the two elective groups.

Required Courses

COCR 958 deleted.

Electives – Group B

COPS 606 deleted.

CPSY 214 added.

Electives – Group C

CPSY 961 replaces COPS 250.

Distance Education

The following course is available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information.

- CPSY 607 Psychology: Drugs and Human Behaviour

■ 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Transfer Credits

Up to four single-term course credits may be granted on the basis of the successful completion of other Ryerson psychology courses or the completion of psychology courses at other post-secondary institutions meeting Ryerson Faculty of Arts requirements. See *Transfer Credits*.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Required Courses

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

- COPS 601 Psychology: Research Methodology
- CPSY 102 Psychology: Introduction to Psychology I
- CPSY 105 Psychology: Perspectives in Psychology
- CPSY 961 Psychology: Thesis Project I

Students planning to enroll in the Independent Study course should contact the Academic Coordinator, Department of Psychology, at 416.979.5000, ext. 6195, in the first week of September or January, to be assigned a faculty advisor from the Department of Psychology.

Electives (select five)

- CPSY 202 **Psychology:** Introduction to Psychology II
- CPSY 214 **Psychology:** Psychopharmacology
- CPSY 215 **Psychology:** Psychology of Addictions
- CPSY 300 **Psychology:** Psychology and Law
- CPSY 302 **Psychology:** Child Development
- CPSY 304 **Psychology:** Psychology of Gender
- CPSY 308 **Psychology:** Psychology of Thinking
- CPSY 324 **Psychology:** Biological Psychology
- CPSY 325 **Psychology:** Psychological Disorders
- CPSY 402 **Psychology:** Adult Development
- CPSY 504 **Psychology:** Social Psychology
- CPSY 505 **Psychology:** Personality Theory
- CPSY 518 **Psychology:** Environmental Psychology
- CPSY 602 **Psychology:** Developmental Psychopathology
- CPSY 606 **Psychology:** Abnormal Psychology
- CPSY 607 **Psychology:** Drugs and Human Behaviour
- CPSY 614 **Psychology:** Psychology of Sport
- CPSY 620 **Psychology:** Psychology of Immigration
- CPSY 621 **Psychology:** Psychology of Human Sexuality
- CPSY 706 **Psychology:** 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 325, 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 COPS 601 in the 2006-2007 annual calendar was incorrect. Students require either CPSY 601 or COPS 601 to complete the Certificate in Psychology.

Required Courses

COPS 601 replaces CPSY 601.

COCR 958 deleted.

Electives

CPSY 214 and CPSY 518 added.

CPSY 813 deleted.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

CPSY 300 **Psychology:** Psychology and Law

CPSY 607 **Psychology:** Drugs and Human Behaviour

Certificates in Public Administration and Governance

■ Public Administration and Governance – Level 1 (PADP)

Students who wish to obtain their Certificate in Public Administration and Governance or the Advanced Certificate in Public Administration and Governance, must apply through the Curriculum Advising office 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, at ving@ryerson.ca or 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 fulfil Levels 1 and 2 of the Public Administration and Governance degree program.

Program Information: Department of Politics and Public Administration: ving@ryerson.ca or 416.979.5057.

Admission Requirements

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

Grade 13 subjects/OSSHGD may be combined/substituted with OACs/OSSD. Students who present credits from the OSSHGD (Grade 13 stream) or in combination with credits from the OSSD (OAC stream) should ensure that the credits satisfy the requirements.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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).

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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CPOG 315 Politics: Equity and Human Rights
- CPOL 332 Politics: Power and Influence in Canada
- CPPA 322 Public Administration: Canadian Public Administration I
- CPPA 422 Public Administration: Canadian Public Administration II

Required Group 1 (select one)

- CPOG 310 Politics: Ontario Politics
- CPOG 440 Politics: Aboriginal Governance/Justice
- CPOL 122 Politics: Local Government in Canada

**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 at www.ryerson.ca/calendar for the complete list of Liberal Studies courses, and use the Course Finder Tool on the Chang School website to search for your course by subject, term, time, or teaching 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 at www.ryerson.ca/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 (see Forms and Documents on the Chang School website at www.ryerson.ca/ce), prior to the appropriate application deadlines.

**■ Note to registered certificate program students
Required Courses**

- CPOG 310 replaces CPPA 522.
- CPOG 315 replaces CPPA 521.
- CPOG 440 replaces CPOL 440.
- CPOL 332 replaces CPOG 210 and CPOL 302.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information. Many Liberal Studies and Professionally Related electives are also offered via distance education; please check individual course descriptions.

- CPOG 315 **Politics:** Equity and Human Rights
- CPOL 332 **Politics:** Power and Influence in Canada
- CPPA 322 **Public Administration:** Canadian Public Administration I
- CPPA 422 **Public Administration:** Canadian Public Administration II
- CPOL 122 **Politics:** Local Government in Canada

**■ 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 Curriculum Advising office 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, at ving@ryerson.ca or 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 fulfil Levels 1 and 2 of the Public Administration and Governance degree program.

Program Information: Department of Politics and Public Administration: ving@ryerson.ca or 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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CPOG 230 Politics: Research and Statistics
- CPOG 319 Politics: The Politics of Work and Labour
- CPA 525 Public Administration: Theories of the State
- CPA 623 Public Administration: Public Policy

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 at www.ryerson.ca/calendar for the complete list of Liberal Studies courses, and use the Course Finder Tool on the Chang School website at www.ryerson.ca/ce to search for your course by subject, term, time, or teaching 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.

Students intending to proceed to Level 3 of the program should familiarize themselves with prerequisites pertaining to professionally related elective courses at all levels of the program as well as options for obtaining a minor.

Note: Upon successful completion of Level 2, students may apply for an Advanced Certificate in Public Administration and Governance by completing an Application to Graduate with a Certificate (see Forms and Documents at www.ryerson.ca/ce) 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, at ving@ryerson.ca or 416.979.5057.

■ Note to registered certificate program students Required Courses

CPOG 319 replaces CPA 533.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information. 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

Certificate in

■ Public Relations

This program provides a curriculum that is relevant to the current and emerging practice of public relations in order to equip students with the skills necessary to perform the public relations function.

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. An interview is required.

To arrange for your interview, please contact the Academic Coordinator at ndoulhoff@ryerson.ca or attend an information night. Students are asked to prepare a one-page, double-spaced essay they have written describing why they wish to study Public Relations. After an applicant has been accepted into the program, no further interviews are required for enrollment in Public Relations courses.

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

Course Prerequisites

Successful completion of all stated prerequisites is required for registration in a course. Students who register in a course without successful completion of the prerequisites will be required to withdraw.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website* at www.ryerson.ca/ce).

Recommended Sequence

CDPR 201
CDRP 111
CDPR 104
CDPR 106
CDPR 113
CDPR 114
CDPR 105
CDPR 107

Required 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
CDPR 201 Public Relations: Public Relations Principles I

■ Note to registered certificate program students

CDPR 109, CDPR 112, CDPR 202, and CDRT 204 deleted.
CDPR 113 and CDPR 114 added. **Note:** This reduces the number of courses in the certificate from nine to eight.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

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 I

Certificate in

■ Publishing

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.

Instructors may include:

Sharon Bailey, production manager, House of Anansi Press
 Don Bastian, publishing consultant
 Camilla Blakeley, editor/writer, Blakeley Words and Pictures
 Elizabeth d'Anjou, freelance editor
 Kathryn J. Dean, editor/writer, Kathryn J. Dean Communications Ltd.
 Hadley Dyer, author, editor
 Stephanie Fysh, freelance editor
 Joy Gugeler, publisher/editor-in-chief, Orato.com
 Sam Hiyate, literary agent
 Brad Horning, program manager, Integrated Publishing Systems, Cengage Learning
 Greg Ioannou, president, Colborne Communications
 David Jolliffe, director, Integrated Media Solutions, Pearson Canada
 Patricia Kennedy, freelance editor
 Ray Lee, SMI Management Consulting
 Anthony E. Luengo, publishing consultant
 Siobhan McMenemy, acquisitions editor, University of Toronto Press
 Peter Moskos, freelance writer, editor, and trainer
 Mary Newberry, freelance editor and indexer
 Mike O'Connor, president, Insomniac Press
 Brian O'Donnell, director, Business Development, Access Copyright
 Melissa Pitts, assistant director, University of British Columbia Press
 Nita Pronovost, senior editor, Doubleday Canada
 Jacqueline Hope Raynor, production manager, Firefly Books
 Rosemary Shipton, Shipton, McDougall Maude Associates
 Susan Shipton, sales and rights manager, Annick Press
 Peter Steven, Fernwood Publishing
 Kimberly Sullivan, production manager, StayWell Health
 Meg Taylor, freelance editor
 Rebecca Vogan, freelance editor
 David Ward, production manager, McClelland & Stewart
 Janice Weaver, freelance editor
 Cara Yarzab, executive acquisitions editor, Thomson Nelson
 Noelle Zitzer, managing editor, HarperCollins Canada

Awards and Bursary

Students registered in the certificate program may apply for the program's awards and bursary.

Eve Orpen Memorial Award
 Marsh Jeanneret Memorial Award
 Pearson Canada Award
 Stephen J. Mills Bursary in Publishing
 Stephen J. Mills Mentorship Award
 Wallace A. Matheson Award for Creativity and Innovation in Educational Publishing
 Rosemary Shipton Award for Excellence in Book Editing

Internships

The following industry internships are among those that may be open to students in the program.

Anne McDermid & Associates
 Between the Lines Publishing
 Book and Periodical Council
 BookNet Canada
 The Bukowski Agency
 Canadian Children's Book Centre
 Canadian Scholars' Press
 Colborne Communications
 Descant magazine
 Doubleday Canada
 The Dundurn Group
 Edmond Montgomery
 Firefly Books
 Fitzhenry & Whiteside
 Harlequin Enterprises
 HarperCollins Canada
 House of Anansi Press
 Irwin Law
 jack digital productions
 John Wiley & Sons
 Kate Walker & Co.
 Key Porter
 Kids Can Press
 Knopf Canada
 Longwoods Publishing
 James Lorimer & Co.
 Madison Press Books
 McArthur & Company
 McClelland & Stewart
 McGraw-Hill Ryerson
 Novalis Publishing
 Oxford University Press
 Pearson Technology Group Canada
 Penguin Canada
 Quill & Quire
 Random House Canada
 Sage Medica
 Second Story Press
 Shore Publishing

Sumach Press
 Thomas Allen Publishers
 Tinlids, Inc.
 Tundra Books
 University of Toronto Press

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Notice to Students

Correct use of the English language is essential in the publishing industry. It is therefore an element in the evaluation and grading of assignments.

Students with no background in publishing are strongly recommended to begin by taking either overview course – CDPB 100 or CDPB 200 – or CDPB 102 or CDPB 105. 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 Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

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)

42-Hour Courses

CDPB 101 Publishing: The Business of Book Publishing
 CDPB 102 Publishing: Copy Editing for Books, Journals, and Reports
 CDPB 103 Publishing: Production for Books, Journals, and Reports
 CDPB 104 Publishing: Introduction to Book Design
 CDPB 105 Publishing: Sales and Marketing for Book Publishers
 CDPB 110 Publishing: Publicity for Book Publishers
 CDPB 202 Publishing: Substantive and Line Editing
 CDPB 802 Publishing: Publishing in the Electronic Age

21-Hour Courses

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

CDPB 301 Publishing: Publishing for Children
 CDPB 302 Publishing: Government Reports
 CDPB 304 Publishing: Scholarly and Reference Publishing
 CDPB 306 Publishing: Trade Books: Fiction
 CDPB 309 Publishing: Editing Books for Children and Teens
 CDPB 310 Publishing: Proofreading for Books, Journals, and Reports
 CDPB 311 Publishing: Indexing for Books, Journals, and Reports

■ Note to registered certificate program students

Electives – 42-Hour Courses

CDPB 110 added.

Electives – 21-Hour Courses

CDPB 309, CDPB 310, and CDPB 311 added.

Distance Education

The following courses are available in a distance education format. See *Distance Education* at www.ryerson.ca/ce/de for more information for more information.

CDPB 100	Publishing: Publishing Overview: Trade
CDPB 200	Publishing: Publishing Overview: Education
CDPB 301	Publishing: Publishing for Children
CDPB 302	Publishing: Government Reports
CDPB 304	Publishing: Scholarly and Reference Publishing
CDPB 306	Publishing: Trade Books: Fiction
CDPB 101	Publishing: The Business of Book Publishing
CDPB 102	Publishing: Copy Editing for Books, Journals, and Reports
CDPB 103	Publishing: Production for Books, Journals, and Reports
CDPB 104	Publishing: Introduction to Book Design
CDPB 105	Publishing: Sales and Marketing for Book Publishers
CDPB 202	Publishing: Substantive and Line Editing
CDPB 802	Publishing: Publishing in the Electronic Age

Certificate in

■ Quality Assurance

The Certificate in Quality Assurance will not be accepting any new registrants. The certificate has been discontinued effective Fall 2009. Students formally registered in the certificate prior to June 30, 2009, must complete the program requirements in effect at the time they registered. For further information, please contact Robert Russell, the Academic Coordinator at rrussel@ryerson.ca.

Certificates in Radio and Television Arts

■ Audio Production Fundamentals

Students will receive a basic hands-on understanding of the production tools used across the full range of the audio industry, with special emphasis in audio applications in new media. This will be supported by theoretical material that provides both a context and a critical lens through which they may view their production work. For detailed certificate and program information, please visit www.ryerson.ca/ce/rta.

Admission Requirements

OSSD with six Grade 12 U or M courses, including OAC English or Grade 12 U English (ENG4U) with a minimum grade of 70 percent or higher, or mature student status is required.

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

Admission Application

Students seeking admission to this program are required to complete an application for pre-approval. To obtain an application, click on Forms and Documents (at www.ryerson.ca/ce), or call 416.979.5180. Completed application forms along with all of the appropriate documentation should be taken to the Information Night. Incomplete applications will not be considered.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of six or seven courses (total course hours 286), 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 on the Chang School website* at www.ryerson.ca/ce). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website* at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

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 111 **Broadcasting and Media Production: Media Tech Theory I**
– Audio and Digital Media
- CBDC 191 **Broadcasting and Media Production: Audio Production I**
- CBDC 905 **Broadcasting and Media Production: The Business of Music**

Electives (select 9 hours)

6 Hour Courses

- CBDC 301 **Broadcasting and Media Production: Production – Audio**

3 Hour Courses

- CBDC 974 **Broadcasting and Media Production: Audio Post-Production and Sound Design**
- CBDC 975 **Broadcasting and Media Production: Sound Synthesis**
- CBDC 979 **Broadcasting and Media Production: Radio Production**

■ Note to registered certificate program students

Required

CBDC 191 replaces CBDC 101.

■ Media Writing Fundamentals

Students will receive a thorough overview of all the various forms of writing for the electronic media, including dramatic writing, commercial writing, and writing for factual programs. Practical assignments will be supported by theoretical material that provides fundamental instruction in dramatic theory and marketing theory, and will provide both a context and a critical lens through which students may view their written work.

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

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 website* (at www.ryerson.ca/curriculumadvising) for complete details.

Admission Application

Students seeking admission to this program are required to complete an application for pre-approval. To obtain an application, click on *Forms and Documents* (at www.ryerson.ca/ce), or call 416.979.5180. Completed application forms along with all of the appropriate documentation should be taken to the Information Night. Incomplete applications will not be considered.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the Chang School website at www.ryerson.ca/ce).

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 on the Chang School website at www.ryerson.ca/ce*).

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**
- CDRT 204 **Broadcasting and Media Production: Writing for Electronic Media**

■ Note to registered certificate program students

Required Courses

CBDC 940 deleted. **Note:** This reduces the number of courses in the certificate from eight to seven.

■ Television Production Fundamentals

Students will receive a basic hands-on understanding of the production tools used across the full range of the television industry. This will be supported by theoretical material that provides both a context and a critical lens through which they may view their production work. In the final courses in this certificate, students are challenged to develop more sophisticated communications in their production elements.

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

Admission Requirements

OSSD with six Grade 12 U or M courses, including OAC English or Grade 12 U English (ENG4U) with a minimum grade of 70 percent or higher, or mature student status is required.

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

Admission Application

Students seeking admission to this program are required to complete an application for pre-approval. To obtain an application, click on Forms and Documents (at www.ryerson.ca/ce), or call 416.979.5180. Completed application forms along with all of the appropriate documentation should be taken to the Information Night. Incomplete applications will not be considered.

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program* (also on the *Chang School website at www.ryerson.ca/ce*).

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 on the Chang School website at www.ryerson.ca/ce*).

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 201 **Broadcasting and Media Production: Media Production II**
– TV Studio and EFP
- CBDC 202 **Broadcasting and Media Production: Media Writing II**
– TV Studio and EFP
- CBDC 211 **Broadcasting and Media Production: Media Tech Theory II**
– TV Studio and EFP
- CDRT 308 **Broadcasting and Media Production: Production**
– TV Studio and EFP

Electives, Group 1 (select one)

- CBDC 955 **Broadcasting and Media Production: Sports Broadcasting**
- CBDC 956 **Broadcasting and Media Production: Children’s Television Production**
- CBDC 957 **Broadcasting and Media Production: Documentary Production**

Electives, Group 2 (select one)

- CBDC 402 **Broadcasting and Media Production: Management and Regulation**
- CBDC 910 **Broadcasting and Media Production: Production Management**

Television Production Summer School

Complete the certificate in ten weeks

Students now have the opportunity to obtain the Certificate in Television Production Fundamentals in an integrated 10-week Spring/Summer program. This intense, five-day-a-week, fast-track program covers all required production, writing, technical theory, and management topics covered in the certificate.

See CDRT 100 – Television Production Fundamentals for details.

Certificate in

■ Residential Care for Children and Youth

The Certificate in Residential Care for Children and Youth is for front-line care workers **currently employed in a residential care facility**. You will build your understanding of the legal, ethical, and performance dimensions of the role of a residential care worker, and your relationship to other care givers and those in their care. You will also gain a sound conceptual base, practical experiences relevant to working in the residential field, and opportunities for further education and professional advancement.

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

Admission Requirements

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

Registrants **must be employed in a residential care facility** or have permission of the academic coordinator.

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

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

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

All courses in this certificate are available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

Certificate in

■ Retail and Services Management

The Certificate in Retail and Services Management will not be accepting any new registrants. The certificate has been discontinued effective Fall 2009. Students formally registered in the certificate prior to June 30, 2009, must complete the program requirements in effect at the time they registered. For further information, please contact the Academic Coordinator, Sean Sedlezky, at 416.979.5000, ext. 7931.

Visit www.ryerson.ca/ce/retail for information on the retail management degree program and course series.

Certificate in

■ 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 (OCSWSSW) and;

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

OR

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

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

OR

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

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

In addition, all applicants must have the following:

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

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

For further information about the program please visit the IESW Program website.

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

Program Information Nights

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 *Information Nights* (at www.ryerson.ca/ce/infonight) for dates, times, and location.

Certificate Requirements

The successful completion of five 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CVSW 13A/B Canadian Social Work Practice (IESW): Foundations of Social Work
- 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

Electives (select one)*

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

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

■ Note to registered certificate program students

- CSWP 130 and CSWP 131 replace CVSW 13A/B.
- CVSW 31A/B replaces CSWP 31A/B.
- CVSW 918 replaces CSWP 918.
- CVSW 35A/B replaces CSWP 36A/B.

Certificate in

■ 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 the issues society faces today. The third required course is a unique capstone course where learners have the opportunity to integrate 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 (available at The Chang School website at www.ryerson.ca/ce), 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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights (at www.ryerson.ca/ce/infonight)

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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 on the Chang School website at www.ryerson.ca/ce*). For complete details on the advantages of early registration, registration deadlines, and transfer credit restrictions, all students should read *Registration in a Certificate Program (also on the Chang School website at www.ryerson.ca/ce)*.

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 on the Chang School website at www.ryerson.ca/ce*).

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 3 electives from one or more of the 3 streams.

Natural Environment Electives

- CKES 123 **Environmental Engineering Science: Hazardous Waste Management**
- CKES 130 **Environmental Engineering Science: Applied Ecology**
- CKES 140 **Environmental Engineering Science: Environmental Management Practice**
- CKES 150 **Environmental Engineering Science: Environmental Assessment**

Urban Environment Electives

- CKAR 601 **Architectural Preservation and Conservation: Building Science for Architectural Preservation and Conservation**
- 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 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**

Certificate in

■ 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 G. Raymond Chang School of Continuing Education, Business, 416.979.5035, or attend a program information night.

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 website (at www.ryerson.ca/curriculumadvising)* for complete details.

Program Information Nights

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 *Information Nights (at www.ryerson.ca/ce/infonight)* 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/calendar for more information.

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

Certificate Registration

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

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 on the Chang School website at www.ryerson.ca/ce*).

Required Courses

- CITM 301 Information Technology Management: Introduction to IT Infrastructure
- CITM 305 Information Technology Management: Systems Analysis and Design
- CITM 600 Information Technology Management: Data Communications Network Design

Electives (select four)

- CITM 315 Information Technology Management: Network Administration
- CITM 420 Information Technology Management: Information Systems Security and Control
- CITM 513 Information Technology Management: Adv Infrastructure Deployment and Management
- CITM 520 Information Technology Management: Emerging Voice and Multimedia Systems
- CITM 704 Information Technology Management: Wireless and Mobile Communications
- CITM 732 Information Technology Management: Switching and Routing Laboratory
- CITM 750 Information Technology Management: IT Project Management

■ 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 course is available in a distance education format. See *Distance Education at www.ryerson.ca/ce/de for more information* for more information.

- CITM 305 Information Technology Management: Systems Analysis and Design

Course Series

■ Business Systems Analysis

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.

For more information, please visit www.ryerson.ca/ce/bsa or contact Christine Brown, Academic Coordinator, Business Systems Analysis at c12brown@ryerson.ca.

Required Courses

- CZSA 100 **Business Systems Analysis:** Business Systems and Strategy
- CZSA 200 **Business Systems Analysis:** Business Systems Analysis and Design
- CZSA 300 **Business Systems Analysis:** Business Process Analysis and Design

■ 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 301 **Retail Management:** Retail Technology and Operations
- CRMG 900 **Retail Management:** Retail Operations I: HR Challenges
- CRMG 901 **Retail Management:** Retail Operations II: Productivity Issues

■ Information Technology Studies

.NET Application Developer

C# and VB.NET are object-oriented programming languages developed by Microsoft that use 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 general information, contact ce@ryerson.ca or 416.979.5035. Further admission information in Internet Technologies can be requested by contacting Janet Shusterman at itstudies@ryerson.ca or 416.979.5000, ext. 7907.

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

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 courses in the following sequence: CXEC 300 or CXEC 302; CXEC 309; CXEC 304 or CXEC 305.

Required Courses

Students may select one of CXEC 300 or CXEC 302.

- CXEC 300 **.NET Application Developer:** Programming With C# and the .NET Framework
- CXEC 302 **.NET Application Developer:** Programming with Visual Basic.Net 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:** Designing and Implementing Databases with Microsoft SQL Server Enterprise Edition
- CXEC 309 **.NET Application Developer:** Developing Web Applications with ASP .NET

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 general information, contact ce@ryerson.ca or 416.979.5035. Further admission information in Networking Technologies can be requested by contacting Janet Shusterman at itstudies@ryerson.ca or 416.979.5000, ext. 7907.

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

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)**

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 general information, contact ce@ryerson.ca or 416.979.5035. Further admission information in Networking Technologies can be requested by contacting Janet Shusterman at itstudies@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 courses in the following sequence: CXIT 401; CXIT 421; CXIT 620 or CXIT 630; and CXCC 104.

Required Courses

- CXCC 104 **Computer and Network Support: Certified Information Systems Security Professional (CISSP)**
- 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**

Note: This course series has been revised effective July 1, 2009.

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

J2EE Solution Developer

J2EE (Java 2 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 J2EE development architecture including servlets, JSP (JavaServer Pages), database application programming, EJB (Enterprise JavaBeans), Struts, Spring Framework, JSF (JavaServer Faces), and XML. This program may assist you with your preparation for various Sun certifications.

This course series is appropriate for learners with a programming background.

For general information, contact ce@ryerson.ca or 416.979.5035. Further admission information in Internet Technologies can be requested by contacting Janet Shusterman at itstudies@ryerson.ca or 416.979.5000, ext. 7907.

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

Those who successfully complete this course series will receive a J2EE Solution Developer recognition from Ryerson University.

Recommended Sequence

Students are advised to take the courses in the following sequence: CXEC 320; CXEC 312; CXEC 313; CXEC 322 or CXEC 326

Required Courses

Students may select one of CXEC 322 or CXEC 326.

- CXEC 312 **J2EE Solution Developer: Developing J2EE Compliant Applications (JavaBeans)**
- CXEC 313 **J2EE Solution Developer: Web Component Development with Java Technology (Servlets and JSP)**
- CXEC 320 **J2EE Solution Developer: Java Advanced**
- CXEC 322 **J2EE Solution Developer: Developing Advanced Web Applications Using Java**
- CXEC 326 **J2EE Solution Developer: XML and Web Services for the Java Platform**

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 general information, contact ce@ryerson.ca or 416.979.5035. Further admission information in Internet Technologies can be requested by contacting 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 courses in the following sequence: CXCP 663; CXCP 185; CXCP 673; CXCP 679 or CXCP 700.

Required Courses

Students may 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 Advanced**
- CXCP 700 **Website Design and Development: Advanced Dreamweaver with CSS**

Supplementary Courses

- CXCP 685 **Website Design and Development: PHP/My SQL Web Design Fundamentals**
- CXCP 695 **Website Design and Development: eCommerce Design with PHP/MySQL**

Note: This course series has been revised effective July 1, 2009. For further information about this course series, please visit www.ryerson.ca/ce/ITS.

■ 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.

Internationally Educated Dietitians Pre-registration Program (IDPP)

The IDPP is a unique learning opportunity designed to give internationally educated nutrition and food professionals information, advice, referral to career opportunities, language testing and training, and, for those who are qualified, preparation for registration with the College of Dietitians of Ontario (CDO) and Dietitians of Canada (DC).

The IDPP features two main services:

- pre-registration program designed to help internationally educated dietitians prepare for registration and practice in Ontario
- assessment and counselling for internationally educated nutrition and food professionals who are exploring their education and work options

For further information and admission requirements, visit the IDPP website at www.ryerson.ca/ce/idpp.

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.

The International Midwifery Pre-registration Program (IMPP)

The International Midwifery Pre-registration Program (IMPP) is a nine-month bridging program. It is your route to registration and practice in Ontario. It provides internationally educated midwives with the following:

- knowledge and skills assessment and enhancement
- orientation to midwifery practice in Ontario
- a three-month clinical placement with competency assessment
- online components
- six-month fast-track option
- preparation for the National Midwifery Registration Exam

The IMPP is intended for experienced international midwives, fluent in English, who have practiced midwifery within the past five years. It is not a re-education or re-training program. There are limited places available in the IMPP, and the admission process is competitive.

If you are an internationally educated midwife, you must take this bridging program in order to be registered to practice in Ontario. For more information and to find out more about your eligibility for the program, visit the IMPP website at www.ryerson.ca/ce/midwife.

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. As an additional support for successful integration, participants will be provided with mentoring opportunities through Ryerson University's network.

For further information and admission requirements, visit the WCC website at www.ryerson.ca/ce/wcc.