

REPORT OF ACADEMIC STANDARDS COMMITTEE

Report #W2014–2; March 2014

In this report the Academic Standards Committee (ASC) brings to Senate its evaluation and recommendations on the following items:

1. Certificate in Data Analytics, Big Data & Predictive Analytics
2. Certificate in Caribbean Studies
3. Discontinuation of Certificates: Industrial Organization and Policy; Introductory International Economics; Macroeconomic Theory and Policy; Microeconomic Theory and Policy; Quantitative Economics
4. Certificate in Economics: Reduction of Graduation Requirements and Addition of Specialization Streams
5. Certificate in Sustainability Management: Revisions
6. Certificate in Energy Management and Innovation: Course Repositioning
7. Name Revision of the Optional Specialization in Zone Education to the Optional Specialization in Zone Learning
8. For information - Certificate in IBM Mainframe Systems xOS Computing: On Pause 2014-2015
9. For information - Certificate in Laboratory Management and Practices: On Pause 2014-2015
10. For information - Certificate in Image Arts (Specialization in New Media): Under Review

1. CERTIFICATE IN DATA ANALYTICS, BIG DATA & PREDICTIVE ANALYTICS

i. Overview and Rationale

Data Analytics, Big Data and Predictive Analytics can be leveraged to seek out insights into an organization's performance, stakeholders, products, services, channels, solutions, future directions, initiatives and innovations. Additionally, Data Analytics, Big Data and Predictive Analytics and the insights they provide need to be applied and deployed strategically to support making better decisions within an organization, be it in the private, public, para-public or non-profit sectors.

The increased flow of digital information, characterized by high volume and variety, provides opportunities for transforming this data (Big Data) into business intelligence and is resulting in a growing demand for data analytics expertise within all sectors and across a variety of business domains. According to Gartner¹, Big Data is the information of extreme size, of diversity and of complexity.

Harvard Business Review² magazine described a data scientist as “a high-ranking professional with the training and curiosity to make discoveries in the world of big data” and suggested both a labour and a skills shortage within the data analytics field. However, it also appears that technical competencies alone will not fully address the particular skills-mix shortage. A combination of business acumen and of statistical/mathematical competencies seems to be the most demand by the marketplace.

The proposed curriculum is designed to meet the requirements of the Certified Analytics Professional (CAP®) program launched by INFORMS in 2012³. The CAP® domains of practice that adhere to the analytics end-to-end process are: business problem framing, analytics problem framing, data, methodology selection, model building, deployment, and model life-cycle management.

¹ Accessed on 26 September 2013 at: <http://www.gartner.com/technology/topics/big-data.jsp>

² Harvard Business Review magazine (October 2012). Data Scientist: The Sexiest Job of the 21st Century. Accessed on 18 September 2013 at: <http://hbr.org/2012/10/data-scientist-the-sexiest-job-of-the-21st-century/>

³ <https://www.informs.org/Certification-Continuing-Education/Analytics-Certification/Candidate-Handbook#1b>

Program registrants will learn how analytics can help to improve decisions throughout an organization's value chain, to understand the different forms of analytics (descriptive, predictive and prescriptive), to develop a good understanding of the methods used in each, and to acquire hands-on experience with analytics tools that are widely used in practice.

If the maximum benefit to Canada's economy is to be obtained from Data Analytics, Big Data and Predictive Analytics, Canada will need skilled data analysts with Data Analytics', Big Data and Predictive Analytics' applied expertise, including proficiency in Big Data implementation and open source data. In anticipation, this proposed certificate program meets this identified market need. Literally tens of thousands of individuals have been hired globally by organizations mandated by statute, or otherwise recognized and credible, in order to apply the technical and analytical skills required to run and to maintain information technology systems and databases.

However, only a small subset of these professionals have also been trained in the creation, management, integration and organization/delivery of data analytics methods and processes applied to databases, Big Data implementation and predictive platforms within the enterprise. Even fewer IT-educated professionals have the knowledge, competencies and skill sets that inspire credibly-based yet assured and confident belief in the integrity, authenticity, accuracy and completeness of the Data Analytics, Big Data and Predictive Analytics being produced as outputs of processed information.

Ryerson trained Data Analytics, Big Data and Predictive Analytics specialists and data analysts will be multi-disciplinary in approach, will have skills in Big Data analytics and in implementation and will be versed not only in technicalities, but in the organizations' identified needs and those organizations' data, databases and processes. Graduates will become a critical component, not only in addressing pressing needs for predictive analysis and findings, but in re-establishing the broadly-based trust that ultimately fuels so much of the economy's and government's performance and productivity. They will contribute professionally to the maximization of organizational value to be extracted from Data Analytics, Big Data and Predictive Analytics' outputs and best practices, the dynamics and exigencies of the necessary R & D and performance management, the products' and services' relevance and efficacy and the inter-functional communication with internal and external customers, thus ultimately augmenting productivity and contributing to Canada's economic prosperity.

This proposed certificate is a collaborative effort between the Faculty of Engineering and Architectural Science and the Department of Mechanical and Industrial Engineering (academic home of the certificate), the Faculty of Science and the Department of Computer Science and the Department of Mathematics, together with the G. Raymond Chang School of Continuing Education.

To ensure that both the course content, course delivery and capstone course of this certificate respond to the needs of participants in this emerging field, high-level practitioners from the sector will be involved in supporting faculty in the development of the course content, and expert practitioners from the public, private and not-for-profit sectors will be involved – through guest lecturing and/or co-teaching with faculty members in-class – in the program. In addition to the applied experience such practitioners will bring to program delivery, their participation will provide valuable networking opportunities for program participants.

ii. Societal Need

The focus of the certificate program is to deliver pertinent, practical, timely and effective education in the areas of Data Analytics, Big Data and Predictive Analytics. Each of these domains is widely recognized as having significant and growing societal importance: with respect to organizational performance in R&D, products and services; with respect to communications to clients and customers; with respect to commerce, finance, research, public utility, law enforcement, government institutions and infrastructure. Big Data implementation and analytics, predictive analytics methods and models,

predictive analytics platforms and qualified professionals knowledgeable harnessing them are in high demand from private and public sector organizations, including from the scientific, technology, legal, social and business perspectives.

New research⁴ by the McKinsey Global Institute projects that there will be a 50 to 60 percent gap between supply and demand of people with data analytical competencies. These professionals will need advanced education in data analytics, statistics and predictive analytics as well as the ability to analyze large data sets (Big Data). The report estimates that a steady stream of analytic talent will be required in all industries, as companies use data, databases and big data and predictive analytics' platforms as a means of competitive advantage.

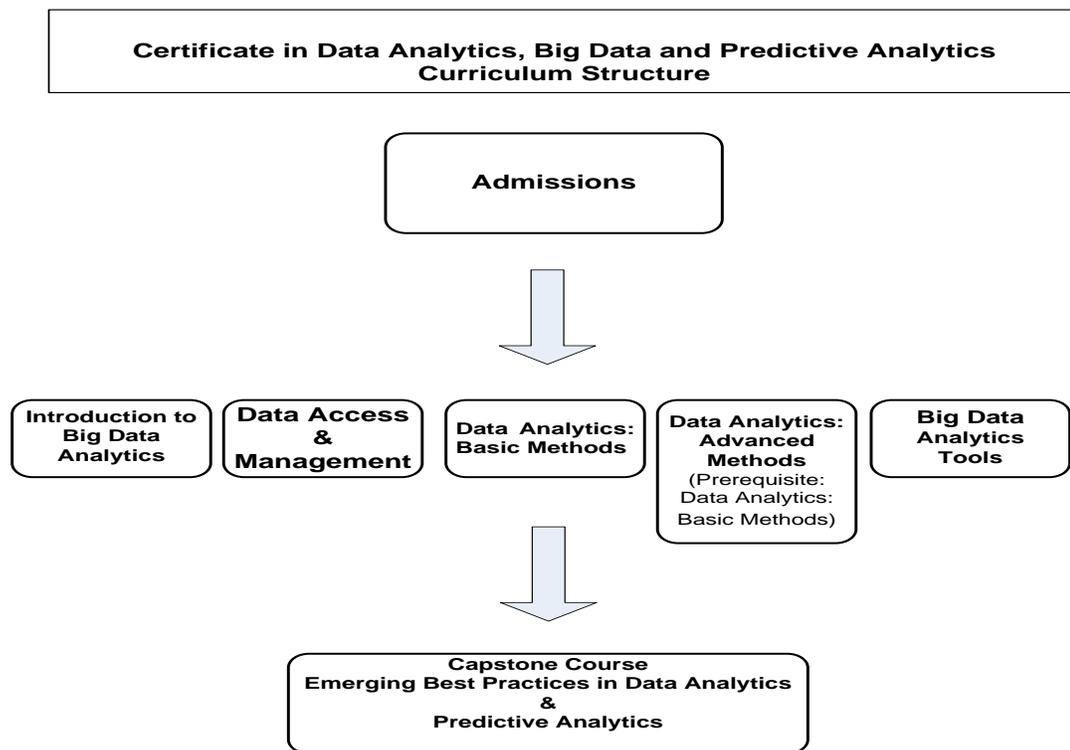
With no other universities in the GTA offering a professional continuing education credential at this advanced level, Ryerson will have competitive edge in this emerging market space.

iii. Curriculum

The curriculum focuses on direct practical application while providing sound academic and technical education in Data Analytics together with Big Data. The certificate provides a strong foundation in Analytics, Tools, and Statistics. The certificate holders shall become qualified as analytics professionals or quasi-professionals. They will have acquired the highest standards of good analytics practice and they will be well-grounded to pursue a path to taking advanced study (i.e. master's program) to continue their professional development in analytics. At the end of the Certificate program, participants will be well versed in using a variety of databases and data sets to analyze and understand data and predict future eventualities, trends and patterns, as well as be proficient in laying the groundwork, strategies and implementation of decision management in order to substantiate future initiatives that lead to innovation, high performance and sustainable outcomes for success.

The certificate requires the completion of six courses (Figure 1), including one capstone course which will be available to students who have completed at least 4 certificate courses and/or who are taking the fifth certificate course concurrently with the capstone course.

⁴Accessed on 26 September 2013 at: <http://www.gartner.com/technology/topics/big-data.jsp>



- The Introduction to Big Data Analytics is to be taken as the first course but it may be taken concurrently with another course in the certificate.
- Data Analytics: Basic Methods Is a prerequisite to the Data Analytics: Advanced Methods.
- Otherwise, all other core courses may be taken concurrently.
- It is recommended that four of the certificate courses be taken before the Capstone course. The Capstone course may be taken in conjunction with the student's fifth course in the certificate.

Figure 1: Certificate curriculum

The certificate consists of the following six courses:

Introduction to Big Data Analytics (Teaching Department: Mechanical and Industrial Engineering/ Computer Science)

This course is designed to give students overview of big data, state of the practice in analytics, the role of the data scientist, big data analytics in industry verticals, and analytics lifecycle as an end-to-end process. It focuses on key roles for a successful analytic project, main phases of the lifecycle, developing core deliverables for stakeholders, team work skills, problem solving skills and professional ethics.

Data Access and Management (Teaching Department: Computer Science)

The course focuses on data querying and reporting techniques as well as data mining and cleaning techniques. Overview of Database Management Systems (DBMS), differences between database architectures, the role of data and database administrators, fundamental concepts and need for data warehousing.

Data Analytics: Basic Methods (Teaching Department: Mechanical & Industrial Engineering)

This course is an introduction to R, analyzing and exploring data with R, and using R with a database. It focuses on statistics for model building and evaluation. Topics cover experimental

research, correlation analysis, regression, confidence intervals, group comparisons, parametric and non-parametric models.

Data Analytics: Advanced Methods (Teaching Department: Mathematics)

This course builds on the Basic Methods course and covers more advanced concepts including classification and clustering algorithms, decision trees, linear and logistic regression, time series analysis, and text analytics. The course will provide applied knowledge on how to analyze large scale network data produced through social media. In this context topics include network community detection, techniques for link analysis, information propagation on the web and information analysis of social media.

Big Data Analytics Tools (Teaching Department: Mechanical and Industrial Engineering)

This course is an introduction to learning big data tools such as Hadoop and advanced SQL techniques. Students will gain a clear understanding of Hadoop concepts, technologies landscape and market trends. They will construct SQL queries of moderate to high complexity to retrieve data from a relational database.

Capstone Course: Emerging Best Practices in Data Analytics & Predictive Analytics (Mechanical and Industrial Engineering, & Mathematics, Computer Science)

This course involves a hands-on application of analytics to apply what has been learned in the previous five courses in a project setting. The Capstone course is intended to provide an opportunity in a Final Project to bring to fruition an applied synthesis of data analytics' methods, techniques and applications (learned in the coursework previously undertaken in the program) and to apply the competencies that this synthesis affords to a real-world area of interest (AOI). Working with a faculty supervisor, participants will apply what they have learned in respect to their real-world AOI.

The curriculum is designed to meet the requirements of INFORMS Certified Analytics Professional (CAP®) program (Figure 2). CAP® requires proficiency and skills in the following seven domains: (1) Business Problem Framing, (2) Analytics Problem Framing, (3) Data, (4) Methodology, (5) Model Building, (6) Deployment, and (7) Model Life Cycle Management. Upon successful completion of this certificate, the participants will be prepared to take INFORMS CAP® exam to become certified professionals.

iv. Admissions Policy

i) An OSSD with six Grade 12 U or M credits (with a minimum grade point average of 70 percent), including:

- a Grade 12 U course in English;
- a Grade 12 U course in Advanced Functions;
- A 12 U course in Calculus and Vectors OR a 12 U course in Mathematics of Data Management, AND one (1) of EITHER:
- A Grade 12 U course in Physics; OR a Grade 12 U course in Chemistry; OR a Grade 12 U course in Biology

OR

ii) Equivalent academic status, for example:

- Sufficient University degree coursework (obtained within the last 10 years) in mathematics, computer science, science, engineering, or business with a minimum cumulative GPA of 1.67.
- or
- A three-year college diploma (obtained within the last 10 years) in mathematics computer science, science, business with a minimum 3.0/B/70% cumulative GPA.
- or
- A relevant or related certificate in the field of data analytics

OR

iii) Mature Student Status:

For Mature Student Status, the Certificate applicants are to have other relevant academic qualifications or relevant professional experience (to be assessed/evaluated by Co-Academic Coordinator in consultation with the applicant):

- Four years of relevant professional experience

v. Comparator Programs⁵

- University of Fraser Valley (Data Analysis post-degree certificate)
- UBC (Digital Analytics)
- U of T (Certificate in Management of Enterprise Data Analytics)
- Centennial College (Graduate Certificate in Marketing-Research and Analytics)
- University of Windsor (MA in Social Data Analysis)

The Data Analytics Certificate offered at the University of Fraser Valley has the most resemblance to the proposed program; however, the courses are delivered in-class which limits the reach in the GTA market. Even though Digital Analytics at the UBC is entirely online, the focus is mainly web analytics and thus narrower than that of the proposed program. Within the GTA, the main comparative institution is the U of T with the 3-course Certificate in Management of Enterprise Data Analytics which incorporates technical and managerial focus. Another competing offer in Toronto is the Graduate Certificate in Marketing-Research and Analytics provided by Centennial College⁶. The suggested curriculum appears largely technical not including business components related to decision-making, strategic perspective, ethics and critical thinking. A strong technical focus may be viewed as a unique aspect of the proposed program, but it may also present a lower competitiveness in relation to more ‘holistic’ data analytics programming.

⁵ Most information from program websites and Vanguard Magazine Publication “Emergency Management Education Showcase”.

⁶ Colleges in the GTA should be considered as competitors, based on The Chang School students’ consideration set. Findings from The Chang School’s annual Student Surveys show that our students predominantly consider University of Toronto and the GTA colleges when deciding where to enroll. Anecdotal evidence also shows that for some programs students consider colleges to be more suitable. Therefore, discounting the role of colleges as our competitors may lead to incomplete information for decision-making.

vi. Target Participants and Job Opportunities

Participants may include those individuals who:

- wish to become, or already are, professionals who wish to use Data Analytics, Big Data and Predictive Analytics to optimize performance at a variety of levels in a wide range of sectors such as private enterprise, government, non-profits, industry, high technology, and in R&D and the delivery products and services;
- are interested in the field of Data Analytics and wish to contribute to a range of employment and technical disciplines, and
- are employed in a related field such as data warehousing, data management, IT, etc. and wish to gather the requisite competencies and credentials for promotion or other career advancement, including competencies related to Big Data analytics.

For those participants seeking career advancement or career mobility (change), the proposed program offers opportunities in a variety of dynamic, challenging and well-paying positions that are demonstrably in need of skilled practitioners such as Web Analytics Specialists, Data Analysts (in various industry domains), Data Analytics Project Leads, Data Science Specialists, Data Warehouse Specialists, Statistical Modeling Analysts, Data Analytics Modeling Analysts, and Predictive Analytics Modeling Analysts.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the Certificate in Data Analytics, Big Data & Predictive Analytics

2. CERTIFICATE IN CARIBBEAN STUDIES

i. Overview

The Caribbean region is an area of incredible diversity: ethno-racial, linguistic, political, economic, and geographical making Caribbean Studies a truly interdisciplinary in nature. Caribbean nations and Canada have shared important relationships for over a century, including economic, cultural and human exchanges. Multiculturalism in Caribbean societies predates Canada's own, and this complexity of Caribbean cultures has also been transplanted through migration by its inhabitants in diasporas to North America and around the globe. A postcolonial region such as the Caribbean has much to teach one about neocolonialism, globalization, and important struggles for resistance and autonomy, both historical and contemporary.

Drawing from long-standing curriculum and expertise in the Faculty of Arts, the Certificate in Caribbean Studies is designed to enrich students' knowledge of this culturally, economically, politically, and historically significant region. The certificate goes beyond the study of the Caribbean in and of itself to consider the links between this region and the rest of the world, particularly in relation to the Caribbean diaspora. Some of the courses explore the socio-economic, political, and cultural connections between the Caribbean and Canada that date back to immigration trends in the 1960s. According to a 2007 study conducted on the Caribbean Community in Canada from census data, there are over half a million people of Caribbean origin living in Canada, i.e., almost 2% of the total population.⁷ Immigration from the Caribbean to Canada is fairly recent, with the majority arriving since 1980. In 2001, 55% of people of Caribbean origin in Canada were born outside of the country.⁸ Most significantly, the Caribbean population is concentrated in Toronto, with almost 60% living in Toronto, accounting for 6% of the city's total population.⁹

⁷ Colin Lindsay, 2007. "Profiles in Ethnic Communities in Canada: The Caribbean Community in Canada," Analytical Paper, Minister of Industry. Statistics Canada (Catalogue no. 89-621-XIE — No. 7), 7. This is the most recent national data on the Caribbean Community in Canada.

⁸ Lindsay, 9.

⁹ Lindsay, 7, 10. Additionally, almost 20% live in Montreal, i.e., 3% of the city's total population.

ii. Certificate Goals

The Certificate in Caribbean Studies has the following goals:

- 1) to provide Caribbean and non-Caribbean students with an in-depth knowledge of a region and a culture that is diverse and rich in history with important ties to Canada;
- 2) to familiarize students with diasporic Caribbean communities in Toronto and elsewhere in order to facilitate cross-cultural understanding and inclusivity;
- 3) to help students, within an interdisciplinarity context, to develop academic skills such as critical thinking, research and writing through the study of a particular region and its peoples;
- 4) to break down stereotypes about the Caribbean and its peoples to promote greater cultural awareness and to support Ryerson's commitment to equity and diversity.

iii. Target Audience

This certificate is intended for all students interested in Caribbean Studies to enrich their appreciation of Caribbean culture and to enhance their professional knowledge of the region and its peoples. Specifically, the certificate is designed for four groups of students: 1) students who have cultural roots in the Caribbean and seek to learn more about the region, 2) students who intend to work in the region, 3) students who work with Caribbean communities in Canada, and 4) students who are interested in acquiring a solid foundation in Caribbean Studies for further study at the undergraduate or graduate level. These are not mutually exclusive groups—it is likely that there will be significant overlap in students' backgrounds, interests, and goals.

The considerable presence of the Caribbean population in Toronto and its socio-economic and cultural impact on the city make a certificate in Caribbean Studies timely and relevant. It is expected that the certificate will be of interest to Continuing Education students who have roots in the community and want to learn more about their cultural heritage, as well as those who intend to work with the Caribbean population in fields such as immigration, education, health services, business, and cultural and community development. Additionally, because of the strong economic ties between Canada and the Caribbean, especially in tourism, students who intend to work in the hospitality industry would be well served in acquiring a deeper knowledge of the region, as well as a nuanced sensitivity to Caribbean cultures.

In addition to Continuing Education students, Ryerson has a sizeable and engaged population of undergraduate students of Caribbean origin, which is made clear from the popularity of courses on the Caribbean and membership in the Caribbean Students' Association.¹⁰ As there is currently no undergraduate program or minor in Caribbean Studies, the certificate would serve as a curricular pathway for undergraduates who are interested in exploring their cultural roots, and/or gaining an intellectual foundation in Caribbean Studies to complement their academic program. In studying the many cultures of the Caribbean, all students in the certificate will develop a greater appreciation of the cultural, linguistic, and ethnic diversity of this region and its peoples. With this foundation, students could choose to pursue a professional degree or graduate studies in the Humanities and Social Sciences while maintaining a focus on Caribbean studies or comparative cultural studies.

iv. Certificate Structure

Ryerson's courses on the Caribbean have proven to be very popular among undergraduate and continuing education students. In the Chang School, CCRB 100, CCRB 500, CCRB 501, CCRB 502, and CHST 222 run every semester and with large enrolments. Since 2007, the total enrolment for these courses has averaged 830 students per year. Because these five courses are virtually guaranteed to run multiple times per year and they make up the core of the certificate, it would be very easy for students to complete the certificate in two to three semesters.

¹⁰ Ryerson does not collect data on the exact number of students of Caribbean origin.

The certificate consists of a coherent academic core of six courses. Only one of the courses, CCRB 605 Caribbean Tourism, has not yet been offered at Ryerson University. Four of the courses will be available online to facilitate students' access to the certificate.

One required course:

CCRB 100 Introduction to the Caribbean (available in class and online)

Five electives from the following list:

CCRB 500 Families in the Caribbean

CCRB 501 Racism and Caribbean Peoples in Canada

CCRB 502 Cultural Traditions in the Caribbean

CCRB 605 Caribbean Tourism: Impacts and Resistance

CFRS 602 French Caribbean Literature and Culture (taught in English; available online)

CHST 222 History of the Caribbean (available online)

CSPN 804 Introduction to Latin American Culture II (taught in Spanish)

CSPS 502 Spanish Caribbean Literature and Culture (taught in English; available online)

All the courses in the certificate are from departments in the Faculty of Arts, with the majority (five of nine) coming from Caribbean Studies in the Department of Sociology. Because the CCRB courses comprise the core of the certificate, it is proposed that the academic home for the Certificate in Caribbean Studies be the Sociology Department, which will ultimately assume responsibility for the Certificate. Currently, the Standing Curriculum Committee comprises members from the Departments of Sociology, History, and Languages, Literatures, and Cultures; and from The Chang School. The Dean of Record will be the Dean of Arts.

v. Certificate Course Descriptions

CCRB100 Introduction to the Caribbean

This course will focus on the similarities in historical development of the different societies in the Caribbean region and the common institutional structures and challenges that persist, despite the diversity of language and culture, race, ethnicity and religion. The course will examine the relationship between physical resources and social, economic and political developments within the colonial and neocolonial context and the resulting systems of inequality.

CCRB 500 Families in the Caribbean

The Caribbean region is composed of peoples from different geographic and cultural areas of the world. This course will explore the major historical influences which define the present diverse structure and composition of families within the Caribbean region. It will examine how these structures have changed in response to globalization, the declining influence of religion, shifts in migration, changes in economic conditions and state policies, and in gender, race and ethnic relations.

CCRB 501 Racism and Caribbean Peoples in Canada

The immigration of Caribbean peoples to Canada will be analyzed within the context of Canadian immigration laws and practices, labour market demands, and institutional responses to racial and ethno-cultural diversity. The major focus of the course will be on the establishment and growth of the Caribbean population in Canada, including employment, business and settlement patterns, changes to family structure, development of Caribbean organizations and community development activities, and issues of systemic and individual racism.

CCRB 502 Cultural Traditions in the Caribbean

This course analyzes the evolution and social significance of cultural traditions in the Caribbean, leading to an understanding of contemporary popular traditions. The course examines the ethnic, racial and cultural diversity of the area, as a source of distinct cultural traditions; the impact of foreign influences; and the export of Caribbean cultural forms to the international area.

CCRB 605 Caribbean Tourism: Impacts and Resistance

This interdisciplinary course will take a critical look at the political, social, cultural, economic and psychological impacts of various forms of tourism in the Caribbean. Links between the current dependency on tourism many Caribbean nations have due to globalization, and historical patterns of colonialism and servitude that persist today and are replicated in many tourism practices, will be examined. Students will be exposed to various elements of diversity relative to Caribbean tourism including racial, ethnic, economic, and sexual. Forms of resistance – political and cultural – against mass tourism will be addressed, as well as new developments in sustainable and ethical tourism.

CHST 222 The History of the Caribbean

This course examines the development of societies in the Caribbean from the intrusion of European explorers and settlers c. 1492 to the dismantling of the slave systems in the 19th century, and beyond to issues, such as independence, affecting the region in modern times.

CFRS 602 French Caribbean Literatures and Cultures

This course, offered in English, will focus on the literature, culture and arts of the Francophone Caribbean (Martinique, Guadeloupe, Haiti). Issues of colonialism and postcolonialism, slavery and freedom, exile and immigration, tensions between race and gender, between languages (French and Creole) will be examined through poetry, novels, storytelling, theater, music and film analysis. Readings include major authors such as Césaire (father of negritude), Condé, Schwartz-Bart, Chamoiseau, J.J. Dominique.

CSPN 804 Introduction to Latin American Culture II

This course is designed to introduce students to the culture of Mexico, Central America and the Spanish-speaking Caribbean. Literary works by authors such as Laura Esquivel, Carlos Fuentes and Nicolas Guillén will be studied in relation to social and political themes in Latin American society. The study of painting, sculpture, cinema, music and popular culture will lead to an enhanced awareness of cultural diversity in the Spanish speaking world. The language of instruction is Spanish.

Prerequisite: CSPN 601 or CSPN 501 or CPSN 515 or Placement Test

CSPS 502 Spanish Caribbean Literatures and Cultures

This course, offered in English, is intended to introduce students to a Spanish speaking Caribbean. Through the study of literature, painting, and cinema, students will have a broad overview of Hispanic Caribbean cultural traditions. Students will study three principal countries: Cuba, Puerto Rico and the Dominican Republic. Major authors to be studied may include Rosario Ferré, Miguel Piñero, Nicolas Guillen, Aida Cartagena Portalatin, Julia de Burgos, Gertrudis Gomez de Avellaneda and Lydia Cabrera.

vi. Certificate Learning Outcomes and/or Functional Competencies

- To provide Caribbean and non-Caribbean students the opportunity to study a region that is rich in history and culture, resulting from the clash and blend of indigenous, African, Asian, and European populations
- To broaden understanding of a region that has often been marginalized politically and economically, but is central to the study of colonialism, miscegenation, racism, slavery, capitalism, revolutions, neocolonialism, diasporas, transnationalism, and globalization
- To familiarize students with the Caribbean communities in Toronto and the rest of Canada, with a view to facilitating cross-cultural understanding, inclusivity, and productive future relationships between Ryerson graduates and their clients, colleagues, and neighbours
- To cluster, structure, and promote existing courses with a Caribbean focus that are offered at Ryerson from a number of departments, providing increased opportunities for student and faculty engagement and cross-disciplinary teaching and research
- To give a solid foundation in interdisciplinarity and academic skills, such as critical thinking, research, writing, comparative analysis, and close reading

- To debunk myths and stereotypes about the Caribbean and Caribbean peoples to promote better understanding, raise cultural awareness, and contribute to Ryerson's commitment to equity and diversity

vii. Admissions Requirements

The certificate will be accessible to any students with a minimum OSSD with six Grade 12 U or M credits, or equivalent, or mature student status.

viii. Societal Need

The Caribbean diaspora in Canada, particularly Toronto, represents a significant population, while the number of Canadians who visit the Caribbean each year is growing. Many Canadians, even those of Caribbean origin, are not familiar with the Caribbean in all its social and linguistic diversity. This certificate is meant to enhance understanding of this region in order to develop and reinforce the strong social, academic and commercial links between the Caribbean and Canada. The popularity of the long-standing, degree-credit courses, most notably CCRB 100, CCRB 500, CCRB 501, CCRB 502 and CHST 222 demonstrates the very strong student interest in Caribbean Studies at Ryerson University. This certificate will fill an important role in furthering intercultural relations and deepening the students' knowledge of Caribbean history and culture.

ix. Employment Overview

The certificate is designed to be taken at any point during a student's academic or professional trajectory. For students looking to bridge into post-secondary education, this certificate will provide a solid foundation in critical thinking, research, writing, close reading, comparative analysis, and interdisciplinarity. These are invaluable skills to pursue further education at the undergraduate level, either in the field of Caribbean Studies, or more broadly in the Humanities, Social Sciences, or professional faculties.

For students who are already working or preparing to enter the workforce, the certificate can enhance their careers by providing an extensive interdisciplinary knowledge of the Caribbean and Caribbean communities in Canada. The certificate provides a valuable foundation for those working with the Caribbean population in immigration, education, health services, business, and cultural and community development. Additionally, because of the strong economic ties between Canada and the Caribbean, especially in tourism, students who intend to work in business or hospitality would be well served in acquiring a deeper knowledge and sensitivity to the region.

x. Comparator Certificate Programs

Ryerson would be the first university or college in the GTA to offer a certificate in Caribbean Studies. The only two post-secondary institutions with significant Caribbean programs are New College at the University of Toronto and York University.

New College at the University of Toronto offers the option of a specialist (10 full courses), a major (6 full courses), or a minor (4 full courses) in Caribbean Studies at the undergraduate level. York University offers the undergraduate option of an honours major (as part of a double major) or a minor in Latin American and Caribbean Studies. Additionally, York offers a Graduate Diploma in Latin American and Caribbean Studies that is taken in conjunction with a Master's or Doctoral program at York. Neither York nor the University of Toronto currently offers courses on Caribbean Studies to their continuing education students.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the Certificate in Caribbean Studies

3. DISCONTINUATION OF CERTIFICATES IN:

- **INDUSTRIAL ORGANIZATION AND POLICY**
- **INTRODUCTORY INTERNATIONAL ECONOMICS**
- **MACROECONOMIC THEORY AND POLICY**
- **MICROECONOMIC THEORY AND POLICY**
- **QUANTITATIVE ECONOMICS**

The Department of Economics proposes to discontinue five certificates¹¹:

CERTIFICATES TO BE DISCONTINUED	# of courses in certificate	# of students currently enrolled	# of students who have graduated
1. Certificate in Industrial Organization and Policy	8	1	0
2. Certificate in Introductory International Economics	8	5	0
3. Certificate in Macroeconomic Theory and Policy	6	12	4
4. Certificate in Microeconomic Theory and Policy	6	8	0
5. Certificate in Quantitative Economics	10	14	2

It is strongly believed that the length of some of the certificates and their prescriptive requirements make them challenging to complete. Data on enrolment patterns show that none of these certificates have been particularly successful, as structured, and that there is a high rate of cancellation and attrition among students.

Although these five certificates will be discontinued, the courses in these certificates will continue to be offered for the foreseeable future. Students who are currently enrolled in the certificates can continue to complete them until six years after their registration date.

The Certificate in Economics (18 graduates) and the Certificate in Economics and Finance (1 graduate) will continue to be offered. Future students who are interested in focusing on a specific area of Economics, e.g., International Economics, Macroeconomics, Microeconomics, Environmental Economics, Applied Economics, or Economic Policy, will be able to follow one of these streams in the Certificate in Economics (see Item 4 below).

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the Discontinuation of Certificates in Industrial Organization and Policy; Introductory International Economics; Macroeconomic Theory and Policy; Microeconomic Theory and Policy; Quantitative Economics

4. CERTIFICATE IN ECONOMICS: REDUCTION OF GRADUATION REQUIREMENTS; ADDITION OF SPECIALIZATION STREAMS

The Department of Economics currently oversees the Certificate in Economics, which has had only 18 out of 109 students graduate since 2007, i.e. a 16.5% completion rate. It is strongly believed that the length of the certificate (eight courses) and its prescriptive requirements make it difficult and unattractive to complete. Data on enrolment patterns show that it has not been a very successful certificate in its current form, and that there is a high rate of cancellation and attrition among certificate students. By reducing the certificate to six courses, it would be similar in curriculum, academic quality, and length to the Economics Minor. This revision would make it more likely that students will complete the certificate.

¹¹ Only 25 students have graduated from any of the Department of Economics certificates since 2007.

In the revised Economics certificate, the required courses would be reduced from five courses to two, and electives will be increased from three courses to four. Additionally, there would be more choice among the elective courses. Enrolment data indicate that certificate students already take additional Economics courses that do not count for the current and more prescriptive, structured certificate.

Current Certificate in Economics (8 courses)	Revised Certificate in Economics (6 courses)
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	Required Courses CECN 104 Introductory Microeconomics CECN 204 Introductory Macroeconomics
Electives (select three) 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	Electives (select four courses—at least one must be CECN 301 or CECN 504) CECN 301 Intermediate Macroeconomics I CECN 321 Introduction to Law and Economics CECN 501 Industrial Organization CECN 502 Economics of Natural Resources CECN 504 Intermediate Microeconomics I CECN 506 Money and Banking CECN 510 Environmental Economics CECN 600 Intermediate Macroeconomics II CECN 601 The Economics of Information CECN 605 Labour Economics CECN 606 International Monetary Economics CECN 614 An Introduction to Game Theory CECN 627 Econometrics I CECN 640 Economics: The Economics of Immigration CECN 700 Intermediate Microeconomics II CECN 702 Econometrics II CECN 703 Public Finance I CECN 707 Economics of International Trade CECN 801 Principles of Engineering Economics CECN 803 Public Finance II CECN 808 Economic Growth and Technological Change

In the revised certificate students would have the option to select electives from a variety of areas in Economics, or choose to specialize in one of the following seven streams to achieve their individual goals: 1) core economics, 2) international economics, 3) macroeconomics, 4) microeconomics, 5) environmental economics, 6) applied economics, and 7) economic policy. Note - These streams are optional thematic areas and are intended to be a tool to help students make curricular decisions and focus their interest. These streams would not be indicated on a student's transcript.

Core Economics stream electives: CECN 301 Intermediate Macroeconomics I CECN 504 Intermediate Microeconomics I CECN 600 Intermediate Macroeconomics II CECN 700 Intermediate Microeconomics II	Macroeconomics stream electives: CECN 301 Intermediate Macroeconomics I CECN 600 Intermediate Macroeconomics II CECN 815 Advanced Macroeconomics and one course from CECN 506 Money and Banking CECN 606 International Monetary Economics CECN 808 Economic Growth and Technological Change
International Economics stream electives: CECN 301 Intermediate Macroeconomics I CECN 504 Intermediate Microeconomics I CECN 606 International Monetary Economics CECN 707 Economics of International Trade	Microeconomics stream electives: CECN 504 Intermediate Microeconomics I CECN 700 Intermediate Microeconomics II CECN 715 Advanced Microeconomics and one course from CECN 501 Industrial Organization CECN 601 The Economics of Information

	CECN 614 An Introduction to Game Theory
Environmental Economics stream electives: CECN 301 Intermediate Macroeconomics I CECN 700 Intermediate Microeconomics II CECN 502 Economics of Natural Resources CECN 510 Environmental Economics	Economic Policy stream electives: CECN 301 Intermediate Macroeconomics I CECN 321 Introduction to Law and Economics CECN 703 Public Finance I CECN 803 Public Finance II
Applied Economics stream electives: CECN 301 Intermediate Macroeconomics I CECN 605 Labour Economics CECN 627 Econometrics I CECN 702 Econometrics II	

There are currently 51 students, who have taken three certificate courses or fewer, and who might consider transferring to the six-course certificate. The Academic Coordinator for Economics and the Program Director, Arts, would advise current certificate students to help them determine whether transferring to the newly revised six-course Economics certificate is a viable option.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the Certificate in Economics: Reduction of Graduation Requirements; Addition of Specialization Streams

5. CERTIFICATE IN SUSTAINABILITY MANAGEMENT: REVISIONS

Introduction

The following revision recommendations focus the certificate's curriculum on providing both practical and theoretical frameworks to professionals who contribute to, and practice in, the field of sustainability management.

Revision Recommendation 1: Program Structure and Curriculum

It is recommended that the Certificate in Sustainability Management's required courses be changed to include two new required Lean Six Sigma Continuous Improvement courses together with the existing CKSS100 and CKSS101 courses, for a total of four required courses. It is also recommend that the current course CKSS 102 Capstone Experiential Learning be repositioned as an elective in the General stream. This brings the total number of required courses to four and the number of elective courses to two. It is also recommend that the courses currently listed as part of three existing certificate streams be redistributed into four streams. The titles of existing streams would be revised and a new General stream created.

This recommendation is intended to give certificate candidates the opportunity to apply high demand competencies in Lean Six Sigma quality assurance: i) to address sustainability management challenges, problem-solving and solution execution; ii) to help provide students with the ability to leverage Lean Six Sigma processes and decision making in order to achieve business, economic and sustainability goals at their places of work; and, iii) to augment greater enrolment in the certificate with the value-added addition of Lean Six Sigma capacity-building. Lean Six Sigma continuous improvement courses address the specific needs of the industry as well as offer solutions for those specific needs while achieving: i) sustainable products and services performance; ii) customer satisfaction; iii) designs for quality; iv) metrics and measures for sustainable processes (including eliminating waste in product development); and v) employee involvement with clearly defined roles, team building and continuous improvement of sustainable product and service commercialization. The two existing CKSS Fundamentals of Sustainability I and II required courses and the two new required courses in Lean Six Sigma Continuous Improvement will build competency sets in sustainability for applied professional practice.

The implementation of this recommendation is designed: i) to enhance the currency and relevance of the certificate; ii) to increase program enrolments; and iii) to give certificate graduands a competitive advantage professionally. The target audience for the certificate program will be those aspiring to, or already engaged in, the sustainability management professions who seek professional development in order to become more competent with Lean Six Sigma tools, techniques and methodologies. Private and public sector companies are hiring people in significant numbers with Lean Six Sigma knowledge and expertise.

Revised Program Structure and Curriculum

Required Courses

- CKSS 100 Sustainability: Fundamentals in Sustainability I
- CKSS 101 Sustainability: Fundamentals in Sustainability II
- CKSS 210 Sustainability: Lean Six Sigma Continuous Improvement - NEW
- CKSS 211 Sustainability: Lean Six Sigma Sustainable Business Enterprise - NEW

Electives

Students select a total of two electives from one or more of the following streams:

General

- CHTT 510: Hospitality and Tourism: Sustainable Tourism Development
- CKPM 202: Project Management: Fundamentals of Project Management
- CKSS102: Sustainability: Capstone Experiential Learning Course
- CKSS 212: Sustainability: Lean Six Sigma Quality Assurance: Best Practices, Strategies & Decision Making - NEW

Environmental Management

- CKES 130 Environmental Engineering Science: Applied Ecology
- CKES 160 Environmental Engineering Science: Waste Management
- CKES 180 Environmental Engineering Science: Site Assessment
- CKES 190 Environmental Engineering Science: Renewable Energy and Green Technology
- CKES 210 Environmental Engineering Science: Applied Environmental Analysis
- CKES 220 Environmental Engineering Science: Environmental Law and Practice

Architecture & Landscape Design

- CKAR 500 Architecture: Sustainable Buildings
- CKAR 601 Architectural Preservation and Conservation: Building Science for Architectural Preservation and Conservation
- CKAR 610 Architecture: Architectural Preservation and Conservation Techniques
- CKLA 400 Landscape Design: Ecology and Sustainable Landscapes
- CKLA 430 Landscape Design: Making and Meaning of Landscapes
- CKLA 450 Landscape Design: Landscape Restoration

Socioeconomics of Sustainability Forces & Progress

- CECN 502 Economics: Economics of Natural Resources
- CECN 510 Economics: Environmental Economics
- CKEI 100 Energy Management: Energy Innovation and Entrepreneurship
- CKEI 120 Energy Management: Energy and the Public Policy Debate in Canada
- CKEI 110 Energy Management: Energy Conservation: Emerging Trends
- CKEI 130 Energy Management: An Introduction to Smart Grid
- CFNY 404 Food Security: Food Policy and Programs for Food Security
- CFNY 407 Food Security: Community Development 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
- CKSS 201 Sustainability: Sustainability Topics and Trends

Revision Recommendation 2: Modification of Prerequisite Structure

It is recommended that the CKSS100 Fundamentals in Sustainability I course will not be required as a pre-requisite to taking any of the other certificate courses. Students would be able to take any of the required courses, including Lean Six Sigma required courses, and any of their chosen two electives before taking the required course CKSS100, thus allowing: i) an applied foundation in Six Sigma processes (and subject matter covered by elective courses) to be pursued before or after CKSS100, and ii) student choice in the order of courses taken. Possessing knowledge and competencies in Lean Six Sigma prior to taking CKSS100 may well stand students in good stead, should they elect to do so.

Revision Recommendation 3: Modification of Certificate Title

Modify the name of the “Certificate in Sustainability Management” title to the “**Certificate in Sustainability Management and Enterprise Process Excellence**”.

Given that the revised course curriculum now reflects four required courses: two courses in i) Sustainability Management; and, two courses in ii) Lean Six Sigma (strengthening the practical, applied nature of the certificate), it is recommended that the name of the certificate reflect both Sustainability Management and Enterprise Process Excellence. The proposed title change is seen as raising the profile of the certificate while at the same time attracting certificate candidates who are seeking competencies in the representative skill sets.

Revision Recommendation 4: Revised Certificate Description

“Today, we live in challenging times with a fractured, unsustainable society and economy. In response to a growing need to move the world toward sustainable development and sustainable practices, a whole new profession is emerging. Today, sustainability management is of strategic importance globally in order to enhance and maximize the organizational impacts of the principles of sustainability in order to thrive and innovate in response to 21st century challenges by addressing the social, economic, and environmental dimensions – also known as the Triple Bottom Line (TBL or 3BL) or People-Planet-Profits (PPP) issues.

This unique certificate provides the competencies (soft and hard skills) identified as being most critical to the successful performance of professionals working in the field of sustainability by applying high demand tools and techniques of Lean Six Sigma quality assurance to further address management challenges, problem-solving and solution execution. The students will have the ability to leverage Lean Six Sigma processes and decision making in order to achieve business, economic and sustainability goals at their places of work.

The courses in this certificate provide the practical and theoretical framework that sustainability professionals require to make an important contribution in the field of sustainability management.”

Revision Recommendation 5: Modification of Admission Requirements

It is recommended that the admission requirements for the Certificate be modified to allow those persons who qualify based on employment experience. In an effort to capture those professionals who seek to enhance their existing depth of professional work experience and practice through formal educational studies in sustainability/sustainable development, it is proposed that the revised wording to be used in the calendar as follows:

Applicants should meet one of the following criteria:

Possess an undergraduate degree in a relevant field with a GPA of 2.0 or equivalent.

OR

Possess a post-secondary diploma with a GPA of 2.0, or equivalent, AND a total equivalent of three (3) years of full-time relevant employment, subject to the approval of the certificate’s academic coordinator.

OR

Individuals without an undergraduate degree or a post-secondary diploma, but with a total equivalent of four (4) years of relevant full-time employment may be admitted subject to the approval of the certificate's academic coordinator.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the Certificate in Sustainability Management: Revisions

6. CERTIFICATE IN ENERGY MANAGEMENT AND INNOVATION: COURSE REPOSITIONING

An environmental scan conducted for the Energy Management and Innovation Certificate program shows that similar programs at other universities, and new renewable energy programs, are part of a growing trend. These newly developed programs meet an imminent need for knowledge creation and dissemination in the field of energy management.

For Energy Management and Innovation certificate candidates to acquire a breadth of knowledge and expertise targeted specifically in energy management, it is proposed to reposition selected required and elective courses to focus directly on energy management. The modifications to the Certificate in Energy Management and Innovation will further permit learners to contribute effectively to energy management, conservation, sustainability, and public policy governing this regulated sector; and to energy innovation, entrepreneurship, and the challenges and opportunities for developing new energy technologies and business enterprises.

The implementation of these recommendations is designed to enhance the currency and relevance of the certificate in the energy sector, to increase program enrolments and also to give certificate graduates a competitive advantage professionally. The target audience for the certificate program will be those aspiring to, or already engaged in the energy management sector seeking professional development in private and public sector companies where energy sector professionals are in high demand.

These proposed changes have the full support of the FEAS Dean. The FEAS Office of the Dean is the Academic Home for this certificate in collaboration with Ryerson University's Center for Urban Energy.

It is recommended that the following electives for the certificate be repositioned as required courses together with the existing required course CKEI 100 Energy Innovation and Entrepreneurship (for a total of four required courses):

- CKEI 110 Energy Management: Energy Conservation: Emerging Trends
- CKEI 120 Energy Management: Energy and the Public Policy Debate in Canada
- CKEI 130 Energy Management: An Introduction to Smart Grid

It is also recommended that the following required courses for the certificate be repositioned as electives (students select two) together with the existing elective courses CECN 510 Environmental Economics and CKSS 100 Fundamentals in Sustainability I:

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

The proposed changes are intended to benefit certificate candidates by providing an enhanced and more specific focus on energy management by making all the required courses related to Energy Management and that they be taken in the following recommended sequence: CKEI 100; CKEI 110;

CKEI 120; CKEI 130. The certificate program has acquired and developed energy management expertise through its highly knowledgeable and experienced instructors from industry, and through the breadth of resources available to the program. The requested change does not affect individual courses and provides a better focus on energy management.

The proposed amendments to reposition Energy Conservation: Emerging Trends (CKEI 110); Energy and the Public Policy Debate in Canada (CKEI 120); and An Introduction to Smart Grid (CKEI 130), as required courses for the Certificate in Energy Management and Innovation will provide learners with an opportunity to acquire a level of knowledge and expertise that will permit them to contribute effectively to energy management, conservation, sustainability, and public policy governing this regulated sector; and to energy innovation, entrepreneurship, and the challenges and opportunities for developing new energy technologies and business enterprises.

Certificate candidates will continue to have the opportunity to take Renewable Energy and Green Technology (CKES 190) and Fundamentals of Project Management (CKPM 202) courses as electives.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the Certificate in Energy Management and Innovation: Course Repositioning

7. NAME REVISION OF THE OPTIONAL SPECIALIZATION IN ZONE EDUCATION TO THE OPTIONAL SPECIALIZATION IN ZONE LEARNING

This proposal recommends changing the name of the Optional Specialization in Zone Education to the Optional Specialization in Zone Learning.

Zone activities at Ryerson are experiential learning opportunities designed to provide students with a distinctive opportunity to pursue the transformation and development of their own ideas and passions into new social and business enterprises. Unlike more traditional programming, which rightly focuses on a hierarchical transfer of knowledge and skills from a scholar or expert to the students, the Zone concept at Ryerson emphasizes student-led discovery, inquiry, and knowledge and skill acquisition, with instructors and mentors in place to enhance, refine, and support what the students are doing for themselves.

In other words, Zone activities at Ryerson are principally a form of experiential learning, rather than a variation on conventional education. To that end, it's more logical at a program level, and also more comprehensible to students, to describe their experience with Zone activities as Zone Learning, rather than Zone Education. With this in mind, this proposal is that Senate would approve a name change so that the Optional Specialization in Zone Education becomes the Optional Specialization in Zone Learning. There are no other proposed changes to the optional specialization itself besides the name.

Recommendation

Having satisfied itself of the merit of this proposal, ASC recommends:

That Senate approve the name revision of the Optional Specialization in Zone Education to the Optional Specialization in Zone Learning

8. FOR INFORMATION - CERTIFICATE IN IBM MAINFRAME SYSTEMS XOS COMPUTING: ON PAUSE 2014-15

It is recommended that the IBM Mainframe System z/OS Computing Certificate program not accept any new students in the 2014-2015 academic year and that no certificate courses run in the 2014-2015 academic year while The Chang School's Engineering, Architecture and Science unit, in collaboration with other units within The Chang School, consider the future of this certificate.

The IBM Mainframe System z/OS Computing Certificate has been experiencing declining enrollment. Due to insufficient enrollment the certificate did not run during the 2011-2012 academic year. The certificate program ran in 2012-2013 with an approximate average enrollment of 8 students per course. Currently, there are no certificate registrants in the program.

The anticipated need to replace the mainframe technical workforce has declined drastically with the downturn in the economy (with planned retirements put on hold, retirees returning to work on contract, and industry not filling vacated positions); therefore, it is advisable at this time to place the certificate program on “pause” for a year to assess its future. After the year has expired, Chang School Council will be updated as to whether this certificate should be discontinued or not.

9. FOR INFORMATION - CERTIFICATE IN LABORATORY MANAGEMENT AND PRACTICES: ON PAUSE IN 2014-15

For the last two years, the majority of courses in the Certificate in Laboratory Management and Practices have not received sufficient enrolment to run; and those course sections that have run, have run at break-even enrollment. Currently, there are no certificate registrants in this program. It is recommended that this Certificate program not accept any new certificate registrants in the 2014-2015 academic year and that no certificate courses run in the 2014-2015 academic year until the Department of Biology and Chemistry’s Departmental Council and the Chair of Department consider the future of this certificate. After the year has expired, Chang School Council will be updated as to whether this certificate should be discontinued or not.

The rationale to place this certificate program in pause mode for the 2014-2015 year is that the Academic Home Department needs time to reflect on what is the preferred direction forward. Of many possible directions, one direction that may be considered is discontinuance of the certificate. The Department of Biology and Chemistry would like to have the full 2014-15 academic year to deliberate and come to a decision.

10. FOR INFORMATION - CERTIFICATE IN IMAGE ARTS (SPECIALIZATION IN NEW MEDIA): UNDER REVIEW

The Chang School, in collaboration with the School of Image Arts, offers a Certificate in Image Arts, which has three specializations: New Media, Film Studies and Photography. Students register in the Certificate in Image Arts and upon graduation receive a certificate which indicates the specialization. Accordingly, a student may receive a “Certificate in Image Arts Specialization in New Media”.

The program curriculum in the Specialization in New Media is currently under review because the New Media undergraduate degree program has moved from the School of Image Arts to the RTA School of Media.

Normally, Chang would “pause” registration in a certificate if that certificate curriculum were under review; however, since there are three specializations within the Certificate in Image Arts, this cannot occur. Therefore students currently registered in the certificate will be advised that the current curriculum of the New Media Specialization will be available until the end of Spring/Summer semester 2016. Additionally, notice will be provided in the Chang School calendar that new registrants in the Certificate in Image Arts, who intend to complete the specialization will have until the end of Spring/Summer 2016. At the end of Spring/Summer 2016, a decision will be made about the continuation of the Specialization in New Media and its content. The decision will be based on the revisions to the New Media degree program curriculum brought forward by RTA School of Media.

Currently, there are over fifty (50) registered students in the Certificate in Image Arts. It is not possible to know how many are registered in each specialization as the specialization is not declared until certificate requirements have been completed.

Current Certificate in Image Arts

Required Courses

- CMPC 101 Combined Media: Visual Studies I
- CMPC 103 Combined Media: Art and the Classical Tradition
- CMPC 201 Combined Media: Concepts and Theories
- CMPC 203 Combined Media: Art in the Modern World

Specialization in Film Studies

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

Specialization in New Media

- CDNM 109 New Media: Introduction to Web Presentation
- CDNM 121 New Media: Introduction to Interaction Design
- CDNM 209 New Media: Flash for New Media
- CDNM 221 New Media: Video and Audio for New Media

Specialization in Photography

- CDFP 328 Photography: Photography Production I
- CDFP 329 Photography: Photography Production II
- CDFP 333 Photography: Photography and Digital Imaging
- CDFP 358 Photography: Photography and the Web

Respectfully Submitted,



Chris Evans, Chair for the Committee

ASC Members:

- Charmaine Hack, Registrar
- John Turtle, Secretary of Senate
- Chris Evans, Vice-Chair and Vice Provost Academic
- Denise O'Neil Green, Assistant Vice President/Vice Provost, Equity, Diversity and Inclusion
- Andrew Hunter, Faculty of Arts, Philosophy
- Neil Tomlinson, Faculty of Arts, Politics
- Ian Baitz, Faculty of Communication and Design, Graphic Communications Management
- Jean Bruce, Faculty of Communication & Design, Image Arts
- Mary Sharpe, Faculty of Community Services, Midwifery
- Nick Bellissimo, Faculty of Community Services, Nutrition
- Medhat Shehata, Faculty of Engineering and Architectural Science, Civil Engineering
- Colin Ripley, Faculty of Engineering and Architectural Science, Architecture
- Vadim Bostan, Faculty of Science, Chemistry & Biology
- Kelly McKay, Ted Rogers School of Management, Hospitality & Tourism
- Naomi Eichenlaub, Library
- Des Glynn, Chang School of Continuing Education