

**Approval** 

a.

b.

172 - 174

175

Gilmour Hall, Room 210 1280 Main Street West Hamilton, Ontario, Canada L8S 4L8 Phone: 905.525.9140, Ext. 24337 Fax: 905.526.9884 E-mail: univsec@mcmaster.ca http://www.mcmaster.ca/univsec

# **UNDERGRADUATE COUNCIL**

# Tuesday, March 5, 2019 at 2:30 p.m. Gilmour Hall, Council Room (Room 111)

# **AGENDA**

Page		
3 - 8	1.	MINUTES OF PREVIOUS MEETING – DECEMBER 11, 2018  a. Minutes - December 11, 2018
	2.	BUSINESS ARISING
	3.	CHAIR'S REMARKS
	4.	TERMS OF AWARD
		Approval/Information
		a. Changes to Award Terms (Approval)
		b. Proposed New Bursaries (Approval)
		c. Award Name Changes (Information)
9 - 10		d. Award Value Changes (Information)
		Report from the Office of the Registrar, Student Financial Aid & Scholarships
	5.	ADDENDA TO CURRICULUM REVISIONS FOR THE 2019-2020 UNDERGRADUATE CALENDAR
		Approval
11 - 140 <b>a.</b>		a. Faculty of Business
141 - 143		<b>b.</b> Faculty of Engineering
144 - 147		c. Faculty of Humanities
148 - 153		d. Faculty of Science
154 - 167		e. Faculty of Social Sciences
168 - 171		f. Arts & Science Program
	6.	REVISIONS TO CERTIFICATE AND DIPLOMA PROGRAMS

**Business Technology Management Certificate** 

Concurrent Certificate in Leadership & Cross-Cultural Literacy

176 - 177 178 - 185		<ul> <li>c. Concurrent Ethics and Policy for Technological Innovation Certificate</li> <li>d. Human Resources Management Program</li> </ul>
	7.	2020-2021 SESSIONAL DATES
		Approval
186 - 187		a. <u>2020-2021 Sessional Dates</u>
	8.	NEW CERTIFICATE OF COMPLETION PROGRAMS
		Information
188 - 224		a. Artificial Intelligence Certificate of Completion
225 - 258		<b>b.</b> Automation Systems: Architecture & Programming Certificate of Completion
	9.	MCMASTER ENGLISH LANGUAGE DEVELOPMENT DIPLOMA
		Information
259		a. MELD Community Access Award Program
	10.	REPORT FROM THE EXECUTIVE COMMITTEE
		Information
260 - 265		a. Actions Taken on Behalf of Undergraduate Council
	11.	OTHER BUSINESS



# OFFICE OF THE REGISTRAR, STUDENT FINANCIAL AID & SCHOLARSHIPS

To Undergraduate Council
From Undergraduate Council Awards Committee
March 5, 2019

#### CHANGES TO AWARD TERMS FOR APPROVAL

#### The Alumni Canadian Geography Prize

Established in 1985 by the Geography Branch of the McMaster University Alumni Association in recognition of Dr. Lloyd G. Reeds for his contribution to teaching during more than 35 years of service. To be awarded to the student who attains the highest grade in GEOG 2RC3 (or GEO 2HC3) (Canada) GEOG 2OC3.

# The Beale-Lincoln-Hall Travel Scholarship

Established in 1996 by Arnold A. Beale in memory of his parents F. Arnold Beale and Margaret S. Beale and Mr. and Mrs. Walter Gould Lincoln and Commander Harley H. Hall, U.S.N. To be awarded to students who demonstrate high academic standing and are participating in one of McMaster's formal exchange programs. Preference will be given to students enrolled in a program in Biochemistry, Biology, Chemistry, Cognitive Science of Language, Commerce, Cultural Studies and Critical Theory, Earth and Environmental Sciences, Engineering Physics, English, French, Geography, History, Linguistics, Materials Science, Mathematics, Physics or Religious Studies and who demonstrate a lively interest in the humanities and the human and social implications of scientific developments.

#### The Brian Blakey Memorial Scholarship

Established in 1979 in memory of Dr. Brian Blakey, Professor of French, by his friends, colleagues and former students, on behalf of his wife, Dorothy. To be awarded to the student who attains the highest Fall-Winter Average in Level 3 of an Honours program in Classics, Cultural Studies and Critical Theory, Theatre & Film Studies, English, French or Linguistics and Languages. Students must have achieved a B- in either LINGUIST 1A03 or LINGUIST 1AA3.

# The Alice and Walter Day Scholarship

Established in 2012 by Dr. Graham Knight in honour of his grandparents.

To be awarded to a students enrolled in Level 3 of the Honours a Labour Studies program who attain high averages. , in the judgment of the Department of Labour Studies, has demonstrated outstanding academic achievement. Preference will be given to students not enrolled in a combined program.

# The Dubeck Memorial Academic Grant

Established in 2012 by Dr. Michael Dubeck B.Sc. (Class of '51), M.Sc. (Class of '52) in memory of his parents, Samuel and Elsie Dudyk who, through dedication and sacrifice, enabled their two sons to attend McMaster. To be awarded to students enrolled in Level I Environmental & Earth Sciences Gateway, Honours Integrated Sciences, Life Sciences Gateway, or Chemical and Physical Sciences Gateway in the Faculty of Science with a high admission average and who demonstrate financial need. The grant is tenable for up to four years provided the recipient remains enrolled full-time in the Faculty of Science and maintains a minimum Fall-Winter Average of 9.5.

# The S. L. Squire Scholarships

Established in 1938 by beguest of S.L. Squire of Toronto.

Two scholarships to be awarded to students entering Level II of a Mathematics and Statistics Program who, in the judgment of the Department of Mathematics and Statistics, attained notable standing in Mathematics and Statistics + Gateway.

Q:\AWARDS\UCAC\_UGC\2019\UGC March 5 2019\_final.docx



# OFFICE OF THE REGISTRAR, STUDENT FINANCIAL AID & SCHOLARSHIPS

To Undergraduate Council
From Undergraduate Council Awards Committee
March 5, 2019

### PROPOSED NEW BURSARIES FOR APPROVAL

Submitted by the Office of Student Financial Aid & Scholarships

### The Carole J. Wilson Bursary

Established in 2018 by Carole J. Wilson, B.Eng.Mgt. (Class of '84) and MBA (Class of '92) to inspire women to pursue an education in engineering and achieve their full potential. To be granted to students enrolled in the Faculty of Engineering who demonstrate financial need and are Canadian citizens. Preference given to female students who are enrolled in underrepresented programs.

### FOR INFORMATION

### **AWARD NAME CHANGES**

The Thomas M. Daly and Anita Levin Bursary

# **AWARD VALUE CHANGES**

The Adella Margaret Bragg Scholarships \$6,000 (\$1,500 per year) \$12,000 (\$3,000 per year)

The Margaret Elizabeth Burke Memorial Academic Grant \$2,700 \$3,500

The Henry Global Consulting Academic Grant \$1,000 \$1,500

The Jack Howett Academic Grant \$1,500 \$2,000

The Marion D. Maitland Memorial Academic Grant in Art History \$1,200 \$1,750

The John B. McDougall Academic Grant \$1,000 \$3,000

The Eleanor Morris Academic Grant \$800 \$1,000

**The Thompson Academic Grant** \$800 \$1,000

The Troy Family Academic Grant \$2,000 \$2,500

# REPORT FROM THE FACULTY OF BUSINESS TO THE UNDERGRADUATE CURRICULUM AND POLICY COMMITTEE

# FOR THE 2019-2020 ACADEMIC CALENDAR

**JANUARY 2019 - REVISIONS** 

# FACULTY OF BUSINESS REPORT TO SENATE SUMMARY OF MAJOR CURRICULUM CHANGES FOR 2019-2020 ACADEMIC CALENDAR

# **JANUARY 2019 - REVISIONS**

This report highlights substantive changes being proposed to the Undergraduate curriculum. For a complete review of all changes, please refer to the Faculty of Business Curriculum Report for Changes to the 2019-2020 Undergraduate Calendar, located electronically at: <a href="http://ug.degroote.mcmaster.ca/curriculum-report/">http://ug.degroote.mcmaster.ca/curriculum-report/</a>

New Programs
N/A
Program Closures
N/A

**Major Revisions** 

N/A

# FACULTY OF BUSINESS REPORT TO UNDERGRADUATE COUNCIL SUMMARY OF CURRICULUM CHANGES FOR 2019-2020 ACADEMIC CALENDAR

# **JANUARY 2019 – ADDITIONS AND REVISIONS**

This report highlights substantive changes being proposed to the Undergraduate curriculum. For a complete review of all changes, please refer to the Faculty of Business Curriculum Report for Changes to the 2019-2020 Undergraduate Calendar, located electronically at: http://ug.degroote.mcmaster.ca/curriculum-report/

Below is a summary of the proposed changes for approval by the Faculty of Business. Full proposals and course outlines can be found in the appendices beginning on page 35.

# REVISIONS TO MCMASTER GENERAL ACADEMIC REGULATIONS

Updating 'upper-year' to 'upper-level' wording.

# REVISIONS TO DEGROOTE SCHOOL OF BUSINESS (FACULTY OF BUSINESS) – ACADEMIC REGULATIONS

- Revisions of program requirements for students currently in the Integrated Business and Humanities program
- Revising program requirements for students entering the Integrated Business and Humanities program in September 2019 or later.
- Faculty Note revisions
- Removal of "Courses Not Used" section

# **NEW COURSES**

- IBH 2AF3: Global Business Experience
- IBH 2BF3: History of Capitalism
- IBH 3AA3: Relationship Management
- IBH 3AB3: Applied Marketing Management
- IBH 3AC3: Corporate Finance
- IBH 3AD3: Cross-Cultural Communication
- IBH 3BA3: Understanding entrepreneurship and social entrepreneurship from historical and theoretical lenses
- IBH 3BB3: Organizational Strategy
- IBH 3BC3: Poverty, Privilege, and Protest in Canadian History
- IBH 3BD3: Interpersonal Communication

Please note, these courses are listed in the current Academic Calendar as placeholders for the new Integrated Business and Humanities (IBH) program, this submission includes the details for each course as well as two name changes for these existing placeholder courses.

# **REVISIONS TO EXISTING COURSES**

- Removing references to Honours Business Informatics in pre-requisites for various courses. Occurs in 27 places (Commerce 2AB3, 2BC3, 2FA3, 2MA3, 3FA3, 3FF3, 3MD3, 4AK3, 4BK3, 4BX3, 4FB3, 4FC3, 4FL3, 4FM3, 4FO3, 4FP3, 4FW3, 4FZ3, 4KF3, 4KH3, 4MI3, 4OB3, 4OD3, 4OI3, 4QA3).
- Removing references to canceled courses older than 5 years (Commerce 2AA3, 2BA3, 2S03, 3BC3, 3QC3, 3QC3) from all Commerce course pre-requisites.
- Pre-requisite change to Commerce 2IN0 Career Development Course
- Pre-requisite change to Commerce 2OC3 Operations Management
- Grammar edit to Commerce 4BG3 Public Sector Collective Bargaining
- Changing pre-requisite for Commerce 4SA3 International Business
- Course name change for Commerce 4SG3 Corporations and Society. Change to Sustainability: Corporations and Society
- Course name change for Commerce 4SH3 Case Competition and Presentation Skills. Change to Case Analysis and Presentation Skills
- Course code change for IBH 2BC3 Operations Management. IBH 2BC3 would become IBH 3BE3
- Course code change for INNOVATE 3XX3 Changing to INNOVATE 3ZZ3.
- Adding Integrated Business and Humanities (IBH) anti-requisites to Commerce core courses.
- Adding IBH pre-requisites to upper year Commerce electives
- Changing Course name, description and prerequisites for Commerce 4KG3
- Adding tutorial to Commerce 3AB3
- Adding tutorial to Commerce 3AC3

# **REVISIONS TO EXISTING MINORS**

- Removing ECON 2G03 and ECON 2X03 from the Minor in Accounting and Financial Management Services, Minor in Business and Minor in Finance. Substantial changes to the Minor Notes and Requirements.
- Minor in Innovation Adding Commerce 4SA3 and removing Commerce 2AB3

DEVISIONS TO EVISTIMO SERV	TEICATES		
REVISIONS TO EXISTING CERT			
Bachelor of Technology Mana	igement		
COURSE DELETIONS			
N/A			

# FACULTY OF BUSINESS 2019-2020 UNDERGRADUATE CURRICULUM REVISIONS

# **JANUARY 2019 – ADDITIONS AND REVISIONS**

### REVISIONS TO MCMASTER GENERAL ACADEMIC REGULATIONS

School of Business

#### Business I

For specific admission requirements to Commerce II see Program Notes under the heading Programs in the *School of Business* section of this Calendar.

If you are not admitted to Commerce II at the end of Business I, you have the following options available to you.

If your cumulative Grade Point Average is 3.5 or greater, although you may not continue into a Commerce program either now or in the future, you are still in good standing at the University. You may continue at the University in a program outside the School of Business or as a *transition* student in Business. To continue in a program outside the School of Business you must apply for admission to that program through the Office of the Associate Dean appropriate for that program. You should consult that office for more details.

If you are not admitted to another Faculty you may enrol in the School of Business as a transition student for one reviewing period. During that period you cannot take upper-level Commerce courses, and you will not be eligible for consideration for admittance to Commerce II or re-admittance to Business I. The purpose of your registration as a transition student is to make yourself eligible for admission to a degree program outside the School of Business. If you have a cumulative Grade Point Average of 3.0 to 3.4, you will be on academic probation and may continue at the University for one reviewing period as a transition student in the School of Business but will not be permitted to take any upper-level Commerce courses. At the end of your probation period you will not be eligible for consideration for Commerce II or re-admittance to Business I. The purpose of the probation period is to make yourself eligible for a degree program outside the School of Business.

If you have a cumulative Grade Point Average of less than 3.0 at the end of Business I you may not continue at the University either on a full-time or part-time basis.

Rationale: Changing 'Upper-year' to 'upper-level' for consistency within the Academic Calendar.

# REVISIONS TO DEGROOTE SCHOOL OF BUSINESS (FACULTY OF BUSINESS) – ACADEMIC REGULATIONS

# E. Programs for Students who Entered in the Integrated Business & Humanities Program (IBH Program) prior to 2019

Program Notes

- 1. Students cannot take elective work until Level III of the program.
- 2. Students have only one opportunity to be reviewed for entry to Level II. Other options may be pursued through the Student Experience Academic Office (DSB-112.)
- 3. To be considered for entry into Level II of the IBH Program, students must have met all of the following:
  - achieved a cumulative GPA of at least 5.0 on a minimum of 24 units of the required course work for Level I (on first attempts only.)

- cannot have failed more than one required course. These students must successfully complete the failed course at the earliest possible opportunity or they will not be able to continue in the program.
- 4. Students are responsible for ensuring that their course selection is meeting the requirements of their degree.

### Level I: 30 units

#### 24 units

- IBH 1AA3 Financial Accounting
- IBH 1AB3 Perspectives on Canadian Business
- IBH 1AC3 Introduction to Language and Society
- IBH 1AD3 IBH in the Community
- IBH 1BA3 Leadership Coaching 1
- IBH 1BB3 Insight and Inquiry: Questions to Change the World
- IBH 1BC3 Fundamentals of Ethics
- IBH 1BD3 Introduction to Peace Studies for IBH

#### 6 units

- ECON 1B03 Introductory Microeconomics
- ECON 1BB3 Introductory Macroeconomics

### Level II: 30 units

#### 30 units

- IBH 2AA3 Introduction to Marketing
- IBH 2AB3 Information Systems in Management
- IBH 2AC3 Talent Management
- IBH 2AD3 Statistical Data Analysis
- IBH 2AE3 Critical Thinking
- IBH 2BA3 Managerial Accounting
- IBH 2BB3 Introduction to Finance
- IBH 2BC3 Operations Management
- IBH 2BD3 Moral Issues
- IBH 2BE3 Canadian Business History: the Canadian Experience in International Perspective

### Level III: 30 Units

# 24 units

- IBH 3AA3 Management Skills Development Relationship Management
- IBH 3AB3 Applied Marketing Management
- IBH 3AC3 Corporate Finance
- IBH 3AD3 Cross-Cultural Communication
- IBH 3BA3 Understanding entrepreneurship and social entrepreneurship from historical and theoretical lenses
- IBH 3BB3 Strategic Philanthropy and Leadership Organizational Strategy
- IBH 3BC3 Poverty, Privilege and Protest in Canadian History
- IBH 3BD3 Interpersonal Communication

# 6 units

• Open Electives from Commerce courses

# Level IV: 30 units

# 18 12 units

- IBH 4AA6 Leadership
- IBH 4AB6 Social Entrepreneurship
- IBH 4AC6 Global Perspective and Community Engagement

# 12 18 units

• Open Electives from Commerce courses

Rationale: Creating greater elective flexibility for students interested in non-Commerce elective work

# E. Programs for Students who Entered the Integrated Business & Humanities Program (IBH Program) in 2019 or Later

# Program Notes

- 1. Students cannot take elective work until Level III of the program.
- 2. Students have only one opportunity to be reviewed for entry to Level II. Other options may be pursued through the Student Experience Academic Office (DSB-112.)
- 3. To be considered for entry into Level II of the IBH Program, students must have met all of the following:
  - achieved a cumulative GPA of at least 5.0 on a minimum of 24 units of the required course work for Level I (on first attempts only.)
  - cannot have failed more than one required course. These students must successfully complete the failed course at the earliest possible opportunity or they will not be able to continue in the program.
- 4. Students are responsible for ensuring that their course selection is meeting the requirements of their degree.

### Level I: 30 units

#### 24 units

- IBH 1AA3 Financial Accounting
- IBH 1AB3 Perspectives on Canadian Business
- IBH 1AC3 Introduction to Language and Society
- IBH 1AD3 IBH in the Community
- IBH 1BA3 Leadership Coaching 1
- IBH 1BB3 Insight and Inquiry: Questions to Change the World
- IBH 1BC3 Fundamentals of Ethics
- IBH 1BD3 Introduction to Peace Studies for IBH

#### 6 units

- ECON 1B03 Introductory Microeconomics
- ECON 1BB3 Introductory Macroeconomics

# Level II: 30 units

- IBH 2AA3 Introduction to Marketing
- IBH 2AB3 Information Systems in Management
- IBH 2AC3 Talent Management
- IBH 2AD3 Applied Statistics for Business Statistical Data Analysis
- IBH 2AE3 Critical Thinking
- IBH 2AF3 Global Business Experience
- IBH 2BA3 Managerial Accounting
- IBH 2BB3 Introduction to Finance
- IBH 2BC3 Operations Management
- IBH 2BD3 Moral Issues
- IBH 2BE3 Business History Canadian Business History: the Canadian Experience in International Perspective
- IBH 2BF3 History of Capitalism

Level III: 30 Units

#### 24 27 units

- IBH 3AA3 Relationship Management
- IBH 3AB3 Applied Marketing Management
- IBH 3AC3 Corporate Finance
- IBH 3AD3 Cross-Cultural Communication
- IBH 3BA3 Understanding entrepreneurship and social entrepreneurship from historical and theoretical lenses
- IBH 3BB3 Organizational Strategy
- IBH 3BC3 Poverty, Privilege and Protest in Canadian History
- IBH 3BD3 Interpersonal Communication
- IBH 3BE3 Operations Management

#### 3 units

Open Electives

Level IV: 30 units

### 12 units

- IBH 4AA6 Leadership
- IBH 4AB6 Social Entrepreneurship

#### 18 units

• Open Electives

Rationale: Program changes for students who are starting the program in September 2019.

# **Changes to Faculty Notes**

- 1. Upper Level Commerce courses are not open to Business I students. COMMERCE 1AA3 and 1BA3 are not open to Business I students who entered prior to September 2014.
- 2. The Commerce courses for the Business Minor are open to students registered in any four or five level McMaster degree program. For these students, enrolment will be limited to 40 spaces per course on a first come, first served basis in the following courses: COMMERCE 2AB3, 2BC3 (or 3BC3) 2FA3, 2MA3, 2KA3, 2QA3, 3FA3, 3MC3. Please note that all prerequisites for these courses must also be satisfied. Students registered in a McMaster Commerce, Engineering Management or Labour Studies program (where applicable) will be guaranteed enrolment in these courses. See Minor in Business in the Faculty of Business section of this Calendar. Students taking COMMERCE 2FA3, 2MA3 as Business Minor courses will also be required to have obtained a minimum grade of B— in ECON 1B03 as a prerequisite; or completion of ECON 2G03, 2X03, or ARTSSCI 2E03 with a minimum grade of B— as a prerequisite.
- 3. The Commerce courses for the Minor in Finance, the Minor in Accounting and Financial Management Services and the Minor in Information Systems are open to students admitted to the Minor. Please take note that all prerequisites for these courses must also be satisfied. Students taking the Minor in Accounting and Financial Management Services or the Minor in Finance will also be required to have obtained an average of at least 7.0 in ECON 1B03 and 1BB3 as a prerequisite.
- 4. Graduates of McMaster's Commerce programs or one of the Engineering and Management programs may take, as part time students, Level III and IV Commerce courses (not previously taken, to a maximum of 18 units), space permitting excluding COMMERCE 4AG3 \*, 4AH3 \*, 4AJ3\*, with the permission of the Academic Programs Office (See the Admission Requirements section of this Calendar under the heading Continuing Students).
  \*These courses are available as BUS&COM 500, BUS&COM 501, BUS&COM 503, through the School of Business, subject to sufficient enrolments and availability of qualified instructors.
  - Other than those graduates specified above, Commerce courses are not open to Continuing Students.
- 5. Level II and Level III Commerce courses are generally scheduled for three one hour lectures per week; one term. Level IV Commerce courses are generally scheduled for two lectures per week (a two-hour lecture and a one-hour lecture), or, one three hour lecture per week; one term.
- 6. Level IV Commerce requirements: the six units of Level III or IV Commerce courses noted in the School of Business section of this Calendar can only be taken by Level IV Commerce students in their final year.

- 7. COMMERCE 2SB3 is not a mandatory non-Commerce elective for the Commerce programs.
- 8. Note Regarding COMMERCE 4EL3: Students who have been granted Faculty permission to take COMMERCE 4EL3 in Level III Commerce will have this course applied against the program requirements for Level IV Commerce as three of the six required units of Level III or IV Commerce courses. See the DeGroote School of Business (Faculty of Business) program requirements section of this calendar.

Rationale: Aligning with current practices.

Removing Section on Courses Not Used

#### Courses Not Used

Courses, in addition to those which constitute a student's program requirements that are not otherwise designated as *Extra* courses, are classified as being *Not Used* course work. The *Not Used* course work would appear on students' degree audits. *Not Used* course work may be taken only if students are in their final year of the program and are satisfying all the course requirements for their degree program. *Not Used* course work may not be scheduled in a manner which would delay completion of a student's degree program.

Rationale: Entry was intended to guide students pursuing the CA/CPA Accounting designation before there was sufficient elective room within the degree to complete all courses without overloading. This is no longer the case

### **NEW COURSES**

### IBH 2AF3 - Global Business Experience

#### 3 unit(s)

This course has two main objectives: 1) is to understand the role that business plays in the global economy, especially its role in global poverty as well as global peace by immersing students in an international learning experience. 2) For students to understand the historical, sociological, and economic impact in order to assess economic development projects in a developing country. In this course students will learn how globalization connects the developed and developing worlds; how business and the economy maintain structural inequalities and global wealth disparities; the global economic, social, and environmental impact of Western business decisions; the historical, political, geographical, gendered, and cultural context in which business operates, and the impact of economic development policies.

Lectures (3 hours)

Prerequisites: Registration in Level III of the Integrated Business and Humanities Program

# IBH 2BF3 - History of Capitalism

### 3 unit(s)

A History of Capitalism from 1500 to the present. This team-taught course introduces students to characteristics of capitalism, core institutions, and explanations for periodic crises. There are opportunities to read selections from leading proponents, agents, critics, and reformers. Essay topics will be negotiated with students, so that there will be an alignment with their programme/faculty.

Lectures (3 hours), tutorial (1 hour)

Prerequisites: Registration in Level II or above in the Integrated Business and Humanities Program

### IBH 3AA3 - Relationship Management

# 3 unit(s)

Team work, conflict management, negotiation, giving and receiving feedback, communicating vision and expectations these are all key elements of leadership. Ultimately, succeeding in these areas is about managing relationships. Building upon the foundational elements of leadership already acquired, students will gain a deeper awareness of their own and others' motivations, strengths, filters, and responses to conflict, of and how to apply this knowledge to communicate effectively.

Lectures (3 hours), tutorial (1 hour)

Prerequisites: Registration in Level III of the Integrated Business and Humanities Program

# IBH 3AB3 - Applied Marketing Management

### 3 unit(s)

This course builds upon material covered in Introduction to Marketing. It relies on practical, real world case studies to develop students' marketing decision-making skills, and their ability to analyze the business environment in which organizations operate. A major field project, which has student teams working with businesses to audit current practices, study the environment and develop a marketing plan, is a critical part of this course.

Lectures (3 hours)

Prerequisites: Registration in Level III of the Integrated Business and Humanities Program

# **IBH 3AC3** - Corporate Finance

#### 3 unit(s)

This course examines various aspects of the financial management of the firm including the sources and methods of financing, capital structure, dividend policy, leasing, mergers and acquisitions, working capital management, effects of taxation on financial decisions and international aspects of finance.

Lectures (3 hours), tutorial (1 hour)

Prerequisites: IBH 2BB3 and Registration in Level III or above in the Integrated Business and Humanities Program

### IBH 3AD3 - Cross-Cultural Communication

#### 3 unit(s)

Students will explore the links between language and culture and learn skills necessary to be intermediaries between cultures. Topics include: communication between genders, the cognitive role of metaphor, language and perception, emotions across cultures, culture and advertising, body language and cultural stereotyping.

Lectures (3 hours), tutorial (1 hour)

Prerequisites: Registration in Level III or above in the Integrated Business and Humanities Program

# IBH 3BA3 - Understanding Entrepreneurship and Social Entrepreneurship From a Historical and Theoretical Lens

### 3 unit(s)

Students in this course will learn what constitutes entrepreneurship, how it has been practiced throughout history, as well as the necessary social, political, ethical and economic foundations that support a contemporary entrepreneurial economy. They will study empirical research examining entrepreneurial trends in Canada and world-wide, including social entrepreneurship.

Lectures (3 hours)

Prerequisites: Registration in Level 3 of the Integrated Business and Humanities Program

# IBH 3BB3 - Organizational Strategy

### 3 unit(s)

In this course, students will explore frameworks that help them conduct strategic analysis, and formulate and implement new strategies to improve organizational performance. The course is structured to provide strategic management tools and frameworks to assist organizations of all types, from public and private for-profit firms through social businesses and social enterprises to traditional non-profit and charitable organizations. Through case-based discussion, guest speakers, and experiential exercises, professors will push students to answer key questions such as: How do organizations across the for-profit and non-profit continuum define their purpose, and conceptualize, create, and capture value? How do these organizations analyze strategic opportunities and structure effective investments? What is the nature of competitive advantage in for-profit and non-profit contexts and how is it gained and sustained? Lectures (3 hours)

Prerequisites: Registration in Level III or above in the Integrated Business and Humanities Program

# IBH 3BC3 - Poverty, Privilege and Protest in Canadian History

An examination of the political, economic, and social factors shaping the persistence of poverty in Canada in the 1800s and 1900s, together with an analysis of reactions to such inequality. This includes investigation of ideological divisions, ethnic relations, and gender dynamics within the working class and within the labour movement.

Lectures (3 hours), tutorial (1 hour)

Prerequisites: Registration in Level III or above in the Integrated Business and Humanities Program

# IBH 3BD3 - Interpersonal Communication

### 3 unit(s)

This course offers an introduction to contemporary interpersonal communication theories and research. Topics include: small group communication, persuasive communication, argumentation strategies, conflict resolution and computer mediated, intercultural, international and political communication.

Lectures (3 hours), tutorial (1 hour)

Prerequisites: Registration in Level III or above in the Integrated Business and Humanities Program

Global Rationale: These are new courses that are to be included in the Integrated Business and Humanities (IBH) program.

# **REVISIONS TO EXISTING COURSES**

Removing references to Honours Business Informatics in pre-requisites for various courses. Occurs in 27 places (Commerce 2AB3, 2BC3, 2FA3, 2MA3, 3FA3, 3FF3, 3MD3, 4AK3, 4BK3, 4BK3, 4FB3, 4FC3, 4FL3, 4FM3, 4FO3, 4FP3, 4FW3, 4FZ3, 4KF3, 4KH3, 4MI3, 4OB3, 4OD3, 4OI3, 4QA3).

Global Rationale: Phasing out this program, remove references to align with future options and reduce student confusion.

# **COMMERCE 2AB3 - Managerial Accounting I**

### 3 unit(s)

An introduction to concepts underlying the use of cost accounting information for managerial planning and control and for inventory valuation. The nature and analysis of costs and the usefulness and limitations of accounting data for decision-making, including ethical considerations, will be discussed.

Lectures (two hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 (or 2AA3) and registration in any Commerce, Engineering and Management, Honours Business Informatics or four or five-level non-Commerce program.

# **COMMERCE 2BC3 - Human Resource Management and Labour Relations 3 unit(s)**

This course builds on COMMERCE 1BA3 (or 2BA3), focusing on human resource management and labour relations issues and practices from a general management education perspective.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3 (or 2BA3); and registration in any Commerce, Engineering and Management, Honours Business Informatics, Labour Studies, or four or five-level non-Commerce program.

# **COMMERCE 2FA3 - Introduction to Finance**

#### 3 unit(s)

This course introduces the main instruments and institutions in the Canadian financial system. The basic concepts and models of modern financial theory are introduced through lectures and 'hands-on' problem solving. Topics include: the time value of money, capital budgeting, the trade-off between risk and return and security valuation.

Lectures (two hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 (or 2AA3); ECON 1B03; one of MATH 1A03, 1LS3, 1M03, 1N03, 1X03, 1ZA3 or 1Z04; registration in any Commerce, Engineering and Management, Honours Business Informatics, or Honours Actuarial and Financial Mathematics, or four or five-level non-Commerce program. Students in a four- or five-level non-Commerce program must have at least B- in one of ARTSSCI 2E03, ECON 1B03, ECON 2G03, 2X03.

Antirequisite(s): Not open to students with credit or registration in ECON 2103.

# **COMMERCE 2MA3 - Introduction to Marketing**

#### 3 unit(s)

This course introduces the conceptual underpinnings and operational facets of marketing with a primarily consumer (as opposed to industrial) focus.

Lectures (three hours)

**Prerequisite(s):** ECON 1B03 and registration in any Commerce, Engineering and Management-or Honours Business Informatics program; or a grade of at least B- in one of ARTSSCI 2E03, ECON 1B03, 2G03, 2X03, and registration in any four or five-level non-Commerce program.

# **COMMERCE 3FA3 - Managerial Finance**

# 3 unit(s)

This course examines various aspects of the financial management of the firm including the sources and methods of financing, capital structure, dividend policy, leasing, mergers and acquisitions, working capital management, effects of taxation on financial decisions and international aspects of finance.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2FA3 or ECON 2I03; and registration in any Commerce, Engineering and Management, Honours Business Informatics, Honours Actuarial and Financial Mathematics, or four or five-level non-Commerce program.

# COMMERCE 3MD3 - Introduction to Contemporary Applied Marketing

This course will introduce students to key marketing principles and concepts and explore their practical applications in business situations. Case studies are used to give practice in analyzing opportunities, solving marketing issues, and preparing implementation plans. This course is taught through a combination of lectures, case discussions, readings, assignments and a field project.

Lectures (three hours)

**Prerequisite(s):** Registration in Level III or above

**Antirequisite(s):** COMMERCE 2MA3, 3MC3. Not open to students registered in any Commerce, or Honours Business Informatics, or Engineering & Management program.

# COMMERCE 4AK3 - Accounting Information for Decision Making 3 unit(s)

This course covers the basic principles in financial and managerial accounting as well as the use of accounting information in decision making. In the financial accounting part of the course, the course covers the conceptual framework of accounting, Generally Accepted Accounting Principles, financial statements, and financial statement analysis. In the managerial accounting part of the course, the course covers cost behaviour, cost-volume profit relationships, budgeting, and the use of cost information in decision making.

Lectures (three hours)

Prerequisite(s): Registration in Level III or above of a non-Commerce program

**Antirequisite(s):** COMMERCE 1AA3 (or 2AA3), COMMERCE 2AB3. Not open to students registered in any Commerce, Honours Business Informatics, or Engineering and Management program.

Not open to students enroled in any Commerce, Honours Business Informatics, or Engineering and Management program.

# **COMMERCE 4BK3 - The Management of Technology**

#### 3 unit(s)

An introduction to the innovative management of technology including the integration of the firm and technology strategy, external sourcing of technology and the internationalization of technology management.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3(or 2BA3); and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program.

# **COMMERCE 4BX3 - Special Topics in Human Resource Management** 3 unit(s)

Various topics in Human Resource Management are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor. The topics to be included are announced at the time of course offering. For information on course offerings, please refer to the School of Business web site at <a href="http://ug.degroote.mcmaster.ca/course-outlines/">http://ug.degroote.mcmaster.ca/course-outlines/</a> or contact the Student Experience Academic Office, DSB 112. Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3 (or 2BA3); and registration in level III or above in any Honours Commerce, Engineering and Management program-or Business Informatics program, or Level IV of the Commerce program.

# **COMMERCE 4FB3 - Valuation for Finance Professionals 3 unit(s)**

The goal of the course is to build students' skills and confidence in answering the question: 'What is a company worth?' Through the use of case analysis (supplemented with lecture-based background material), we will examine the drivers of corporate value, traditional and alternative valuation models and approaches, and various valuation situations (IPO valuation, private equity and LBO valuation, valuation of high-growth and mature firms, among others). Lectures (three hours)

**Prerequisite(s):** COMMERCE 3FA3 and registration in level III or above in any Honours Commerce, Engineering and Management program-or Business Informatics program, or Level IV of the Commerce program; or Minor in Finance

# **COMMERCE 4FC3 - Ethics and Professional Practice in Finance 3 unit(s)**

This course introduces students to the practices and codes of conduct involved in the finance function. The course covers ethical issues and the roles of the corporate financial manager, other stakeholders and other participants in the investment industry. The emphasis of the course will be on readings, rules, and regulations from the CFA Institute. Cases and speakers will be employed to bring a real world perspective to the classroom.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 3FA3 and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program; or Minor in Finance

# **COMMERCE 4FL3 - Personal Financial Management 3 unit(s)**

The course covers various topics that are relevant to the financial decision making of individuals. These decisions include investment, retirement planning, debt and credit management, renting vs. buying a home, insurance and risk management and personal income tax planning and strategies.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2FA3 or ECON 2I03; and registration in level III or above in any Honours Commerce, Engineering and Management program-or Business Informatics program, or Level IV of the Commerce program.

# **COMMERCE 4FM3 - Personal Financial Planning and Advising 3 unit(s)**

Students will examine financial planning concepts by undertaking a major integrative project. This course is strongly recommended for students working towards the CFP designation.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 4FL3 or COMMERCE 4FP3; and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program.

# COMMERCE 4FO3 - Small Business and Entrepreneurial Finance 3 unit(s)

This course is intended for students who wish to enhance their skills and knowledge in those areas of business that lead to successful entrepreneurship and/or small business management. The focus will be on those financial issues and decisions of particular concern to sole proprietors, partnerships, family-owned businesses and small non-public corporations. Lectures (three hours)

**Prerequisite(s):** COMMERCE 2FA3 or ECON 2I03; and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program.

# **COMMERCE 4FP3 - Personal Finance** 3 unit(s)

A major objective of the course is to provide students with the tools and skills needed to make sound financial decisions throughout their lives. Financial planning is the process of managing one's money to achieve personal economic satisfaction. This process involves setting realistic goals and organizing financial activities toward the achievement of the

goals. It also depends on the control of financial affairs by avoiding excessive debt, building up wealth, and managing financial risk.

Lectures (three hours)

Antirequisite(s): COMMERCE 4FL3. Not open to students registered in any Commerce, or Honours Business Informatics, or Engineering & Management program; or the Minor in Finance.

# **COMMERCE 4FW3 - Finance for Entrepreneurs**

### 3 unit(s)

This course is intended for students who wish to enhance their skills and knowledge in those areas of business that lead to successful entrepreneurship and/or small business management. The focus will be on those financial issues and decisions of particular concern to sole proprietors, partnerships, family-owned businesses and small non-public corporations. This will include the financial aspects of the relationship between the firm and its owners.

Lectures (three hours)

**Prerequisite(s):** Students in a 3rd or 4th year non-Commerce program.

Antirequisite(s): COMMERCE 4FO3. Not open to students registered in any Commerce, or Honours Business Informatics, or Engineering & Management program; or the Minor in Finance.

### **COMMERCE 4FZ3 - Islamic Finance**

### 3 unit(s)

With rapid globalization, the world economy is becoming increasingly integrated across countries and societies with divergent economic practices. Predominantly Islamic countries are becoming important suppliers and users of financial capital. In this course, students will gain an appreciation of common Islamic financial concepts (Murabaha, Musharaka, Istisna) instruments (Sukuk), relevant legal (Western and Islamic) jurisprudence, and regulatory and disclosure standards. Lectures (three hours)

**Prerequisite(s):** COMMERCE 3FA3 and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program, or the Minor in Finance.

# **COMMERCE 4KF3 - Project Management**

#### 3 unit(s)

Topics include: project selection, project organization structures, life cycles, planning, estimation, budgeting, resource allocation, contracting, project management software, reporting and controlling issues and conflict management. Lectures and online (three hours)

**Prerequisite(s):** Registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program.

Antirequisite(s): COMMERCE 4QF3

# COMMERCE 4KH3 - Strategies for Electronic and Mobile Business

## 3 unit(s)

This course covers the strategic issues that the modern business manager must deal with in making strategic decisions concerning the choice, implementation and execution of electronic and mobile business solutions for start-ups and established enterprises.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2KA3 and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program; or Level IV of the Commerce program.

# Antirequisite(s): COMMERCE 4QH3

Rationale: Remove anti-requisite as COMMERCE 4QH3 is no longer offered.

### **COMMERCE 4MI3 - Marketing Analytics**

# 3 unit(s)

Marketing departments are increasingly utilizing data routinely collected by their organizations to improve marketing decision making and more effectively allocate resources. This course will familiarize students with tools necessary for converting raw data into valuable consumer insights. The course offers a hands-on, practical approach, giving students the opportunity to become familiar with data analysis software. The course will emphasize both inference and prediction and highlight the trade-offs associated with different marketing analytics methods.

Lectures (three hours)

Prerequisite(s): Registration in any Commerce, Engineering and Management, or Honours Business Informatics

program; COMMERCE 2MA3 and COMMERCE 3MA3 for students registered in any Commerce program; COMMERCE 2MA3 for students registered in any Engineering and Management or Honours Business Informatics program.

# **COMMERCE 40B3 - Analysis of Production/Operations Problems 3 unit(s)**

An examination of analytical approaches to problems in the field of production/operations. The course will provide indepth coverage of a limited number of topics. Enterprise resource planning system SAP is used to highlight some of the concepts covered in this course. This course is used towards SAP Certification in Business Integration. Lectures (three hours)

**Prerequisite(s):** One of COMMERCE 2OC3 (or 3QC3), 4QA3 or MECHENG 4C03; and registration in level III or above in any Honours Commerce, Honours Business Informatics or Engineering and Management program; or Level IV of the Commerce program.

# **COMMERCE 40D3 - Purchasing and Supply Management 3 unit(s)**

Students will gain skills that are necessary to manage purchasing operations in the private and public sectors. Topics include: purchasing policies, procedures, supplier selection, order management (including quality, quantity, delivery and price decisions), spend analytics, negotiation and contract management, outsourcing, international procurement and sustainability issues. Relevant procurement components of SAPs enterprise resource planning system will be demonstrated. This course can be used towards SAP Certification in Business Integration.

Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** One of COMMERCE 2OC3 (or 3QC3) or COMMERCE 4QA3 and registration in level III or above in any Honours Commerce, Honours Business Informatics or Engineering and Management program; or Level IV of the Commerce program.

# **COMMERCE 4013 - Supply Chain Management 3 unit(s)**

Supply chain, the network of materials, information and money, has become a key dimension in business competition. In this course, we will present the basic concepts and techniques in supply chain management using an integrated approach. We will also discuss the key drivers in supply chain management, and learn the success and failure stories of supply chain management. Enterprise resource planning system SAP is used to highlight some of the concepts covered in the course. This course is used towards SAP Certification in Business Integration.

Lectures (three hours)

**Prerequisite(s):** One of COMMERCE 2OC3 (or 3QC3) or COMMERCE 4QA3 and registration in level III or above in any Honours Commerce, Honours Business Informatics or Engineering and Management program; or Level IV of the Commerce program.

Antirequisite(s): COMMERCE 4QI3 or 4QX3 (if taken in Winter terms 2011, 2012, or 2013)

# **COMMERCE 4QA3 - Operations Modelling and Analysis**

A course that looks at productions and operations management as practiced in engineering and manufacturing industries and the services sector.

Lectures (three hours)

**Prerequisite(s):** One of STATS 2MA3, STATS 3J04, 3N03, STATS 3Y03, MATLS 3J03, ENGPHYS 3W04, COMMERCE 2QA3 or equivalent, and registration in any Engineering and Management, Honours Business Informatics or Mechanical Engineering program; or registration in Level IV or V of any Engineering Physics program **Antirequisite(s):** COMMERCE 2OC3 (or 3QC3)

### **Removing 5 References to COMMERCE 2AA3:**

# **COMMERCE 1AA3 - Introductory Financial Accounting 3 unit(s)**

This is an introduction to the basic principles and practices of financial accounting, which includes an examination of

income measurement and asset and liability valuation, to provide an understanding of financial accounting information and the ethics of financial reporting.

Lectures (three hours)

**Antirequisite(s): COMMERCE 2AA3** 

# **COMMERCE 2AB3 - Managerial Accounting I**

#### 3 unit(s)

An introduction to concepts underlying the use of cost accounting information for managerial planning and control and for inventory valuation. The nature and analysis of costs and the usefulness and limitations of accounting data for decision-making, including ethical considerations, will be discussed.

Lectures (two hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 (or 2AA3) and registration in any Commerce, Engineering and Management, Honours Business Informatics or four or five-level non-Commerce program.

# **COMMERCE 2FA3 - Introduction to Finance**

### 3 unit(s)

This course introduces the main instruments and institutions in the Canadian financial system. The basic concepts and models of modern financial theory are introduced through lectures and 'hands-on' problem solving. Topics include: the time value of money, capital budgeting, the trade-off between risk and return and security valuation.

Lectures (two hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 (or 2AA3); ECON 1B03; one of MATH 1A03, 1LS3, 1M03, 1N03, 1X03, 1ZA3 or 1Z04; registration in any Commerce, Engineering and Management, Honours Business Informatics, or Honours Actuarial and Financial Mathematics, or four or five-level non-Commerce program. Students in a four- or five-level non-Commerce program must have at least B- in one of ARTSSCI 2E03, ECON 1B03, ECON 2G03, 2X03.

Antirequisite(s): Not open to students with credit or registration in ECON 2I03.

# COMMERCE 3AB3 - Intermediate Financial Accounting I

A first course in intermediate financial accounting dealing with the theory and practice of financial statement preparation and reporting. The emphasis will be on asset valuation and the related impact on income measurement.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 1AA3 (or 2AA3) and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

# COMMERCE 4AK3 - Accounting Information for Decision Making 3 unit(s)

This course covers the basic principles in financial and managerial accounting as well as the use of accounting information in decision making. In the financial accounting part of the course, the course covers the conceptual framework of accounting, Generally Accepted Accounting Principles, financial statements, and financial statement analysis. In the managerial accounting part of the course, the course covers cost behaviour, cost-volume profit relationships, budgeting, and the use of cost information in decision making.

Lectures (three hours)

**Prerequisite(s):** Registration in Level III or above of a non-Commerce program

**Antirequisite(s):** COMMERCE 1AA3 (or 2AA3), COMMERCE 2AB3. Not open to students registered in any Commerce, Honours Business Informatics, or Engineering and Management program.

Not open to students enroled in any Commerce, Honours Business Informatics, or Engineering and Management program.

# **Removing 7 References to COMMERCE 2BA3**

# COMMERCE 1BA3 - Organizational Behaviour 3 unit(s)

The central objective of this course is to develop an understanding of human behaviour in organizations with a view toward effective management of such behaviour.

Lectures (three hours)

**Antirequisite(s): COMMERCE 2BA3** 

# COMMERCE 2BC3 - Human Resource Management and Labour Relations

This course builds on COMMERCE 1BA3 (or 2BA3), focusing on human resource management and labour relations issues and practices from a general management education perspective.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3 (or 2BA3); and registration in any Commerce, Engineering and Management, Honours Business Informatics, Labour Studies, or four or five-level non-Commerce program.

# **COMMERCE 4BK3 - The Management of Technology**

#### 3 unit(s)

An introduction to the innovative management of technology including the integration of the firm and technology strategy, external sourcing of technology and the internationalization of technology management. Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3(or 2BA3); and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program.

# **COMMERCE 4BN3 - Leadership Development**

### 3 unit(s)

This highly participative learning portfolio-based course on Leadership focuses on the potential for personal and professional growth of the student. The course provides an initial understanding of the fundamentals and theories of leadership, and then moves to an appreciation of students own leadership styles, behaviors, and experiences as well as an understanding of other individuals leadership styles, behaviors, and experiences. A major objective of the course is to encourage the student to become more reflective and self-aware.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3 (or 2BA3), 2BC3, 3S03; registration in Level IV or above of a Commerce or Engineering & Management program; and Instructor Permission

# **COMMERCE 4BP3 - Principles of Leadership**

### 3 unit(s)

This course reviews the key concepts, approaches, models and theories of leadership. It develops students understanding of major elements of leadership research and will equip students to critically evaluate the popular writing on leadership and consider their own leadership potential and how to develop it. Fundamental leadership skills will be introduced with opportunities for student self-diagnosis.

Lectures (three hours)

Prerequisite(s): COMMERCE 1BA3 (or 2BA3), 2BC3, 3S03

# **COMMERCE 4BX3 - Special Topics in Human Resource Management 3 unit(s)**

Various topics in Human Resource Management are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor. The topics to be included are announced at the time of course offering. For information on course offerings, please refer to the School of Business web site at http://ug.degroote.mcmaster.ca/course-outlines/ or contact the Student Experience Academic Office, DSB 112. Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3 (or 2BA3); and registration in level III or above in any Honours Commerce, Engineering and Management program or Business Informatics program, or Level IV of the Commerce program.

# **Removing 1 Reference to COMMERCE 2S03**

# **COMMERCE 3803 - Management Skills Development**

The purpose of this course is to provide the necessary cognitive and behavioural skills that students need to develop themselves as competent managers through the acquisition and practice of personal, interpersonal, and group skills.

Lectures (three hours)

Prerequisite(s): COMMERCE 2BC3(or 3BC3) and registration in any Commerce program

Antirequisite(s): COMMERCE 2S03

### Removing 10 References to COMMERCE 3BC3

#### **COMMERCE 3S03 - Management Skills Development**

#### 3 unit(s)

The purpose of this course is to provide the necessary cognitive and behavioural skills that students need to develop themselves as competent managers through the acquisition and practice of personal, interpersonal, and group skills. Lectures (three hours)

Prerequisite(s): COMMERCE 2BC3(or 3BC3) and registration in any Commerce program

**Antirequisite(s): COMMERCE 2S03** 

#### **COMMERCE 4BB3 - Recruitment and Selection**

#### 3 unit(s)

This course exposes students to staffing issues in the Canadian context. Topics include job analysis, methods of recruitment and selection, human rights legislation and decision making strategies.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3); and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

# **COMMERCE 4BC3 - Collective Bargaining**

### 3 unit(s)

A survey of the nature, determinants, and impact of collective bargaining in Canada. Both the procedural and substantive aspects of collective bargaining will be studied.

Lectures (three hours)

**Prerequisite(s):** One of COMMERCE 2BC3 (or 3BC3), LABRST 2A03; and registration in level III or above in any Honours Commerce, Labour Studies or Engineering and Management program or Level IV of the Commerce program.

# **COMMERCE 4BD3 - Settlement of Industrial Disputes**

# 3 unit(s)

The nature and the role of industrial conflict as well as the techniques which have been developed to control the incidence of conflict in union-management situations.

Lectures (three hours)

**Prerequisite(s):** One of COMMERCE 2BC3 (or 3BC3), LABRST 2A03; and registration in level III or above in any Honours Commerce, Labour Studies or Engineering and Management program or Level IV of the Commerce program. COMMERCE 4BC3 is recommended.

# **COMMERCE 4BE3 - Strategic Compensation/reward Systems**

### 3 unit(s)

Key issues in designing effective pay systems are discussed. Topics include: job evaluation, market pay surveys, pay structures, performance incentives, knowledge pay and employee benefits.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3); and registration in any Commerce or Engineering and Management program.

### **COMMERCE 4BF3 - Labour Law and Policy**

#### 3 unit(s)

An analysis of the concepts and fundamentals of Canadian labour law and analysis of Canadian labour policy. Lectures (three hours)

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3); and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

Cross-list(s): LABRST 3C03

This course is administered by Labour Studies.

# **COMMERCE 4BG3 - Public Sector Collective Bargaining**

#### 3 unit(s)

This course examines unionization and collective bargaining for employees in the public sector. Topics include: bargaining issues, bargaining outcomes and impasse resolution.

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3); and Registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program. Subject to space availability.

Cross-list(s): LABRST 4C03

# **COMMERCE 4BI3 - Training and Development**

# 3 unit(s)

This course provides a framework for establishing, revising and examining training programs in organizations. Topics include: needs assessment, development of training objectives, planning and delivery of instruction, learning principles and evaluation of training.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3); and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

# **COMMERCE 4BL3 - Occupational Health and Safety Management 3 unit(s)**

This course enhances students' knowledge on managing occupational health and safety, teaches research skills, and assists students in developing strategies for creating healthy workplaces.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3) and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

# **COMMERCE 4BM3 - Strategic Human Resource Planning**

### 3 unit(s)

This course provides an understanding of the essential elements of Human Resource Planning processes in organizations. Students will acquire knowledge in analyzing, assessing and programming for human resource requirements of the organizational business plans and strategies.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2BC3 (or 3BC3) and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

# **Removing 6 References to COMMERCE 3QC3**

# **COMMERCE 20C3 - Operations Management 3 unit(s)**

The course will cover both manufacturing and service operations topics at the strategic, tactical and operational levels. Topics include capacity planning, layout of facilities, forecasting, aggregate planning, scheduling, inventory control, purchasing, supply chains and quality control. Emphasis will also be placed on process improvement and project management. The course will look at supply chain issues related to globalization and sustainability including environmental and social issues.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2QA3 and registration in any Commerce program or four or five level non-Commerce program.

Antirequisite(s): COMMERCE 3QC3, 4QA3, MECHENG 4C03.

This course is not open to students in any Engineering and Management program.

# **COMMERCE 40B3 - Analysis of Production/Operations Problems 3 unit(s)**

An examination of analytical approaches to problems in the field of production/operations. The course will provide in-

depth coverage of a limited number of topics. Enterprise resource planning system SAP is used to highlight some of the concepts covered in this course. This course is used towards SAP Certification in Business Integration. Lectures (three hours)

**Prerequisite(s):** One of COMMERCE 2OC3 (or 3QC3), 4QA3 or MECHENG 4C03; and registration in level III or above in any Honours Commerce, Honours Business Informatics or Engineering and Management program; or Level IV of the Commerce program.

# **COMMERCE 40D3 - Purchasing and Supply Management 3 unit(s)**

Students will gain skills that are necessary to manage purchasing operations in the private and public sectors. Topics include: purchasing policies, procedures, supplier selection, order management (including quality, quantity, delivery and price decisions), spend analytics, negotiation and contract management, outsourcing, international procurement and sustainability issues. Relevant procurement components of SAPs enterprise resource planning system will be demonstrated. This course can be used towards SAP Certification in Business Integration.

Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** One of COMMERCE 2OC3 (or 3QC3) or COMMERCE 4QA3 and registration in level III or above in any Honours Commerce, Honours Business Informatics or Engineering and Management program; or Level IV of the Commerce program.

# **COMMERCE 4013 - Supply Chain Management**

3 unit(s)

Supply chain, the network of materials, information and money, has become a key dimension in business competition. In this course, we will present the basic concepts and techniques in supply chain management using an integrated approach. We will also discuss the key drivers in supply chain management, and learn the success and failure stories of supply chain management. Enterprise resource planning system SAP is used to highlight some of the concepts covered in the course. This course is used towards SAP Certification in Business Integration.

Lectures (three hours)

**Prerequisite(s):** One of COMMERCE 2OC3 (or 3QC3) or COMMERCE 4QA3 and registration in level III or above in any Honours Commerce, Honours Business Informatics or Engineering and Management program; or Level IV of the Commerce program.

Antirequisite(s): COMMERCE 4QI3 or 4QX3 (if taken in Winter terms 2011, 2012, or 2013)

# COMMERCE 4QA3 - Operations Modelling and Analysis 3 unit(s)

A course that looks at productions and operations management as practiced in engineering and manufacturing industries and the services sector.

Lectures (three hours)

**Prerequisite(s):** One of STATS 2MA3, STATS 3J04, 3N03, STATS 3Y03, MATLS 3J03, ENGPHYS 3W04, COMMERCE 2QA3 or equivalent, and registration in any Engineering and Management, Honours Business Informatics or Mechanical Engineering program; or registration in Level IV or V of any Engineering Physics program **Antirequisite(s):** COMMERCE 2OC3 (or 3QC3)

# **COMMERCE 4QX3 - Special Topics in Operations Management 3 unit(s)**

Various topics in operations management are considered. They will vary depending upon recent developments in the field and upon the research interests of the instructor. The topics to be included are announced at the time of course offering. For information on course offerings, please refer to the School of Business web site at

http://ug.degroote.mcmaster.ca/course-outlines/ or contact the Academic Programs Office, DSB 112. Lectures (three hours)

**Prerequisite(s):** COMMERCE 20C3 (or 3QC3) registration in any Honours Commerce Program or Level IV of the Commerce program or Commerce 4QA3 and registration in any Engineering & Management program.

Global Rationale: Attempt to clean up requisites and anti-requisites and remove references to courses that are no longer being offered by the Faculty of Business, reduces confusion for students.

# **COMMERCE 2IN0 - Career Development Course 0** unit(s)

A Career Development course designed to equip students with the tools necessary to successfully participate in summer, internship and full time job searches. Topics include: skills assessment, resume and cover letter development, interview skills, networking, job search strategies, business etiquette. Successful completion of this course is one of the requirements to participate in the Commerce Internship Program.

Lectures (two hours)

**Prerequisite(s):** Registration in Level II of a Bachelor of Commerce Program or Permission of the Manager of the Career and Professional Development.

A separate course fee of \$175 will be applied to your student account upon enrolment in the course. For more information on Commerce 2IN0 see <a href="http://ug.degroote.mcmaster.ca/course-outlines/">http://ug.degroote.mcmaster.ca/course-outlines/</a>. Please refer to the Commerce Internship Program section of the Undergraduate Calendar for a complete listing of requirements for participation.

Rationale: Allows for students in the Integrated Business and Humanities program to enroll in this course.

# Commerce 2OC3 - Operations Management 3 unit(s)

The course will cover both manufacturing and service operations topics at the strategic, tactical and operational levels. Topics include capacity planning, layout of facilities, forecasting, aggregate planning, scheduling, inventory control, purchasing, supply chains and quality control. Emphasis will also be placed on process improvement and project management. The course will look at supply chain issues related to globalization and sustainability including environmental and social issues. Lectures (three hours), tutorial (one hour).

**Prerequisite(s):** One of ARTSSCI 2R03, COMMERCE 2QA3, ECON 2B03, ELECENG 3TQ4, ENGPHYS 3W04, HTHSCI 1F03, 2A03, NURSING 2R03, SOCSCI 2J03, STATS 1CC3, 2B03, 2MB3, 3J04, 3N03, or 3Y03; and registration in any Commerce program, or four or five level non-Commerce program.

Antirequisite(s): COMMERCE 3QC3, 4QA3, MECHENG 4C03

This course is not open to students in any Engineering and Management program.

Rationale: Edit for readability

# **COMMERCE 4BG3 - Public Sector Collective Bargaining**

3 unit(s)

This course examines unionization and collective bargaining for employees in the public sector. Topics include: bargaining issues, bargaining outcomes and impasse resolution.

**Prerequisite(s):** COMMERCE 2BC3; and Registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program. COMMERCE 4BC3 is also recommended. **Cross-list(s):** LABRST 4C03

Rationale: Making COMMERCE 4BC3 in Pre-requisite list upper case.

# **COMMERCE 4SA3 - International Business**

3 unit(s)

The key features of, and trends in, the global business environment. The implications of cultural and political differences. Comparative operational practices and multinational management. Lectures (three hours)

**Prerequisite(s):** COMMERCE 3MC3; and registration in Level IV of a Commerce program or Level V of any Engineering and Management program or with instructor permission.

Rationale: There students in their third year of study who completed 3MC3 in the fall term and would like to take 4SA3 in the winter term.

# COMMERCE 4SG3 - Corporation and Society Sustainability: Corporations and Society 3 unit(s)

The goal of this course is to familiarize students with a variety of sustainability related concepts including the triple bottom line, resilience, stakeholder engagement, the tragedy of the commons, sustainability and technology, and sustainable business models. Using cases, simulations, guest speakers, a group project and reflection, students will sharpen their ability to critically analyze and debate complex and systemic issues from an informed position. Students will emerge from this course understanding both the challenges and opportunities inherent in sustainability. Lectures (three hours)

Prerequisite(s): Registration in Level III or IV of a four or five year program or instructor permission

**Rationale:** Change the course title to Sustainability: Corporations and Society to ensure that students can more readily find the course if their interest is in sustainability.

# COMMERCE 4SH3 - Case Competition and Presentation Skills Case Analysis and Presentation Skills 3 unit(s)

Cases allow students to directly apply and integrate theories from various business disciplines to real-world situations/problems. Students will be working in teams and will have the opportunity to present their analysis and recommendations to a panel of judges. Hence, they will also develop their presentation skills, team and time management and communication skills. The first half of the course will provide students with the tools they need to approach case analysis. These tools include problem solving methodologies, communication approaches and team building skills. The final half of the course will allow students to practice applying these tools in case analysis situations in a three hour format. The cases will cover various industries and companies as well as different disciplines. Students will also be able to critique the analysis and presentation skills of their peers.

Lectures (three hours)

Prerequisite(s): COMMERCE 3MC3

Rationale: Change the word "competition" to "analysis" because it creates confusion for students who think that this course is mandatory to compete in any case competition.

### IBH 2BC3 – 3BE3 Operations Management

3 unit(s)

Operations management (OM) is the science and art of creating and delivering goods and services to customers. Basic topics in operations management include goods and service design, facility design, locating facilities, quality management, project planning, supply chain management, lean operating systems, forecasting customer demand, process strategy, and inventory management. These days this field of study is subjected to changes and challenges. Maintaining a sustainable environment while efficiently converting resources into safe and quality outputs, coordinating between operations and other business functions, increasing profitability while providing a safe workplace and honouring stakeholder commitments are a few to mention. These topics will be discussed in this introductory operations management course.

Lectures (three hours), tutorial (one hour)

Prerequisite(s): IBH 2AD3 and Registration in Level # III of the Integrated Business and Humanities Program.

Rationale: Course is now being offered in Level III.

# INNOVATE 3XXZZ3 – Imagining and Shaping the Future 3 unit(s)

This ambitious interdisciplinary course provides a platform for students to develop the strategic foresight, planning and leadership skills needed to imagine and shape the future. Students will analyze the systems, trends and uncertainties driving the future of such business and social domains as workplaces, healthcare systems, climate change, and financial markets. Students will also develop the skills needed to mobilize people and resources towards desired outcomes. In addition to team experiential learning projects, students will explore future directions on issues of personal interest.

Prerequisite(s): Registration in Level III or above in a four or five year program.

Rationale: Aligning with coding from Engineering department.

# Adding Integrated Business and Humanities (IBH) anti-requisites to Commerce core courses.

# **COMMERCE 1AA3 - Introductory Financial Accounting**

#### 3 unit(s)

This is an introduction to the basic principles and practices of financial accounting, which includes an examination of income measurement and asset and liability valuation, to provide an understanding of financial accounting information and the ethics of financial reporting.

Lectures (three hours)

Antirequisite(s): COMMERCE 2AA3 IBH 1AA3

# **COMMERCE 1BA3 - Organizational Behaviour**

# 3 unit(s)

The central objective of this course is to develop an understanding of human behaviour in organizations with a view toward effective management of such behaviour.

Lectures (three hours)

Antirequisite(s): COMMERCE 2BA3 IBH 1BA3

# **COMMERCE 1E03 - Business Environment and Organization**

### 3 unit(s)

This course will examine the relationship between business organizations, their functional areas and the environments - social, political, legal, regulatory and technological - that affect them.

Lectures (two hours), tutorial (one hour) **Prerequisite(s):** Registration in Business I

Antirequisite(s): IBH 1AB3

### **COMMERCE 2AB3 - Managerial Accounting I**

### 3 unit(s)

An introduction to concepts underlying the use of cost accounting information for managerial planning and control and for inventory valuation. The nature and analysis of costs and the usefulness and limitations of accounting data for decision-making, including ethical considerations, will be discussed.

Lectures (two hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 (or 2AA3) and registration in any Commerce, Engineering and Management, Honours Business Informatics or four or five-level non-Commerce program.

Antirequisite(s): IBH 2BA3

### **COMMERCE 2BC3 - Human Resource Management and Labour Relations**

#### 3 unit(s)

This course builds on COMMERCE 1BA3 (or 2BA3), focusing on human resource management and labour relations issues and practices from a general management education perspective.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 1BA3 (or 2BA3); and registration in any Commerce, Engineering and Management, Honours Business Informatics, Labour Studies, or four or five-level non- Commerce program.

Antirequisite(s): IBH 2AC3

# **COMMERCE 2FA3 - Introduction to Finance**

#### 3 unit(s)

This course introduces the main instruments and institutions in the Canadian financial system. The basic concepts and models of modern financial theory are introduced through lectures and 'hands-on' problem solving. Topics include: the time value of money, capital budgeting, the trade-off between risk and return and security valuation. Lectures (two hours), tutorial (one hour)

Prerequisite(s): COMMERCE 1AA3 (or 2AA3); ECON 1B03; one of MATH 1A03, 1LS3, 1M03, 1N03, 1X03, 1ZA3 or

1Z04; registration in any Commerce, Engineering and Management, Honours Business Informatics, or Honours Actuarial and Financial Mathematics, or four or five-level non-Commerce program. Students in a four- or five-level non-Commerce program must have at least B- in one of ARTSSCI 2E03, ECON 1B03, ECON 2G03, 2X03.

Antirequisite(s): IBH 2BB3; Not open to students with credit or registration in ECON 2I03.

# **COMMERCE 2KA3 - Information Systems in Business**

# 3 unit(s)

This course emphasizes the strategic role of information systems in modern business. Topics include: the technical foundations of information systems, the impact of information systems on business operations and decision-making and the processes that are required for successful implementation of business information systems.

Lectures (three hours)

**Prerequisite(s):** Registration in any Commerce or four or five-level non-Commerce program or non- Engineering and Management program.

Antirequisite(s): IBH 2AB3

# **COMMERCE 2MA3 - Introduction to Marketing**

### 3 unit(s)

This course introduces the conceptual underpinnings and operational facets of marketing with a primarily consumer (as opposed to industrial) focus.

Lectures (three hours)

**Prerequisite(s):** ECON 1B03 and registration in any Commerce or Engineering and Management or Honours Business Informaties program; or a grade of at least B- in one of ARTSSCI 2E03, ECON 1B03, 2G03, 2X03, and registration in any four or five-level non-Commerce program.

Antirequisite(s): IBH 2AA3

# **COMMERCE 20C3 - Operations Management**

### 3 unit(s)

The course will cover both manufacturing and service operations topics at the strategic, tactical and operational levels. Topics include capacity planning, layout of facilities, forecasting, aggregate planning, scheduling, inventory control, purchasing, supply chains and quality control. Emphasis will also be placed on process improvement and project management. The course will look at supply chain issues related to globalization and sustainability including environmental and social issues.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2QA3 and registration in any Commerce program or four or five level non-Commerce program.

Antirequisite(s): IBH 3BC3, COMMERCE 3QC3, 4QA3, MECHENG 4C03.

This course is not open to students in any Engineering and Management program.

# **COMMERCE 2QA3 - Applied Statistics for Business 3 unit(s)**

An introduction to the application of statistical analysis in managerial decision-making. The concepts of statistical analysis are applied to a variety of topics, including decision-making, estimation by sampling, hypothesis testing, analysis of variance, simple linear and multiple regression and forecasting.

Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** Finite Math (or Mathematics of Data Management U or equivalent) or STATS 1L03; and registration in any Commerce, Engineering and Management or four or five-level non-Commerce program.

Antirequisite(s): IBH 2AD3; ARTSSCI 2R03, ECON 2B03 ELECENG 3TQ4, ENGPHYS 3W04, HTH SCI 1F03, HTHSCI 2A03, NURSING 2R03, SOCSCI 2J03, STATS 1CC3, STATS 2B03, STATS 2MB3, STATS 3J04, 3N03, STATS 3Y03.

Not open to students with credit or enrolment in both EENGPHYS 3W04 and MATH 3D03.

# **COMMERCE 3S03 - Management Skills Development 3 unit(s)**

The purpose of this course is to provide the necessary cognitive and behavioural skills that students need to develop themselves as competent managers through the acquisition and practice of personal, interpersonal, and group skills. Lectures (three hours)

Prerequisite(s): COMMERCE 2BC3(or 3BC3) and registration in any Commerce program Antirequisite(s): COMMERCE 2S03-IBH 3AA3

# **COMMERCE 3MC3 - Applied Marketing Management**

3 unit(s)

Builds upon material in COMMERCE 2MA3 but is more applied in nature and covers the 4 P's in greater depth. It also has a heavier industrial and service sector component, and relies more on practical, real world cases. A major field project (student teams working with companies) is a critical part of the course.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2MA3 and registration in any Commerce, Engineering and Management or four or five-level non-Commerce program.

Antirequisite(s): IBH 3AB3

# **COMMERCE 3FA3 - Managerial Finance**

3 unit(s)

This course examines various aspects of the financial management of the firm including the sources and methods of financing, capital structure, dividend policy, leasing, mergers and acquisitions, working capital management, effects of taxation on financial decisions and international aspects of finance.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2FA3 or ECON 2I03; and registration in any Commerce, Engineering and Management, Honours Business Informatics, Honours Actuarial and Financial Mathematics, or four or five-level non-Commerce program.

Antirequisite(s): IBH 3AC3

Global Rationale: Equivalent course content with Commerce and Integrated Business and Humanities programs.

# Adding IBH Equivalent Courses to Upper-Year Commerce Courses

# 4 Commerce Courses That List Commerce 1AA3 As A Pre-Requisite

(Commerce 2AB3, 2FA3, 3AB3, 4AK3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 1AA3 or IBH 1AA3

# 5 Commerce Courses That List Commerce 1BA3 As A Pre-Requisite

(Commerce 2BC3, 4BK3, 4BN3, 4BP3, 4BX3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 1BA3 or IBH 1BA3

# 8 Commerce Courses That List Commerce 2MA3 As A Pre-Requisite

(Commerce 3MA3, 3MB3, 3MC3, 3MD3 (Anti-requisite), 4MA3, 4ME3, 4MH3, 4MI3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Example Prerequisite(s):** COMMERCE 2MA3 or IBH 2AA3

# 6 Commerce Courses That List Commerce 2KA3 As A Pre-Requisite

(Commerce 3KA3, 3KD3, 3KE3, 4KG3, 4KH3, 4KI3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 2MA3 or IBH 2AB3

# 12 Commerce Courses That List Commerce 2BC3 As A Pre-Requisite

(Commerce 3S03, 4BB3, 4BC3, 4BD3, 4BE3, 4BF3, 4BG3, 4BI3, 4BL3, 4BM3, 4BN3, 4BP3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 2BC3 or IBH 2AC3

#### 3 Commerce Courses That List Commerce 2QA3 As A Pre-Requisite

(Commerce 3MA3, 3QA3, 4QA3)

COMMERCE XXX3

3 unit(s)

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 2QA3 or IBH 2AD3

# 1 Commerce Course That List Commerce 2AB3 As A Pre-Requisite

(Commerce 4AA3)

# **COMMERCE XXX3**

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 2AB3 or IBH 2BA3

# 7 Commerce Courses That List Commerce 2FA3 As A Pre-Requisite

(Commerce 3FA3, 3FB3, 3FD3, 4FL3, 4FO3, 4FR3, 4FS3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Example Prerequisite(s):** COMMERCE 2FA3 or IBH 2BB3

# 5 Commerce Courses That List Commerce 2OC3 As A Pre-Requisite

(Commerce 4OB3, 4OD3, 4OI3, 4QA3, 4QX3)

**COMMERCE XXX3** 

3 unit(s)

Example Prerequisite(s): COMMERCE 2OC3 or IBH 3BE3

# 5 Commerce Courses That List Commerce 2OC3 As A Pre-Requisite

(Commerce 4OB3, 4OD3, 4OI3, 4QA3, 4QX3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 2OC3 or IBH 2BC3

# 2 Commerce Courses That List Commerce 3S03 As A Pre-Requisite

(Commerce 4BN3, 4BP3)

**COMMERCE XXX3** 

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Example Prerequisite(s): COMMERCE 3S03 or IBH 3AA3

# 2 Commerce Courses That List Commerce 3MC3 As A Pre-Requisite

(Commerce 4BN3, 4BP3)

COMMERCE XXX3

3 unit(s)

Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Example Prerequisite(s):** COMMERCE 3MC3 or IBH 3AB3

Global Rationale: To allow Integrated Business and Humanities students to take upper-year Commerce electives.

# **Changes to Commerce 4KG3**

COMMERCE 4KG3 - Data Mining and For Business Intelligence Analytics

3 unit(s)

Business intelligence (BI) Analytics (BA) is a technology-driven process for analyzing data and presenting actionable information to help corporate executives, business managers and other end users make more informed business decisions. The course is designed for students in multiple business areas. Students will learn the concepts, techniques, and applications of data mining for and business intelligence analytics through lectures, class discussions, hands-on assignments, and term paper seminar presentations.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2KA3; 2QA3 (or equivalent) and Enrollment in Level III or above of an Honours Commerce or Engineering & Management program; or enrollment in Level IV of the Commerce program; or instructor permission.

Rationale: Industry terminology has changed and new name reflects this. Prereqs were changed to require a Statistics course which is essential for analytics.

# **Changes to Commerce 3AB3**

COMMERCE 3AB3 - Intermediate Financial Accounting I

3 unit(s)

A first course in intermediate financial accounting dealing with the theory and practice of financial statement preparation and reporting. The emphasis will be on asset valuation and the related impact on income measurement. Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

Rationale: Adding a tutorial in allow for greater case work

# **Changes to Commerce 3AC3**

### 3AC3 - Intermediate Financial Accounting II

3 unit(s)

A second course in intermediate financial accounting dealing with reporting issues that relate to liabilities and owners' equity. In particular, the concepts of recognition, measurement and disclosure of such items as bonds, taxes, leases and pensions as well as the phenomenon of off-balance sheet financing are examined.

Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 3AB3 and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

Rationale: Adding a tutorial in allow for greater case work

# **REVISIONS TO EXISTING MINORS**

# Minor in Accounting and Financial Management Services

### **Notes:**

- 1. Application for admission (forms available from the Student Experience Academic Office) must be submitted to the Student Experience Academic Office by **April 30**.
- 2. Students seeking the Minor must have completed ECON 1B03 and 1BB3 with an average of at least 7.0; or completion of ECON 2G03 or 2X03 with a minimum grade of B.
- 3. The Minor is not open to students registered in any Commerce or Engineering and Management program.
- Students seeking to obtain the Minor must complete either ECON 2G03 or 2X03, and both ECON 2B03 and 2H03 before undertaking any Level III or Level IV Accounting courses.
- 5. For the purposes of this Minor, all courses listed as anti-requisite for COMMERCE 2QA3 in the Course Listings section of the Undergraduate Calendar will be accepted as a substitute for ECON 2B03.

# Requirements

33 30 units total

### 6 units

- ECON 1B03 Introductory Microeconomics
- ECON 1BB3 Introductory Macroeconomics

# 3 units

- ECON 2G03 Intermediate Microeconomics I
- ECON 2X03 Applied Business Economics
- (See Note 4 above)

- ECON 2B03 Analysis of Economic Data
- ECON 2H03 Intermediate Macroeconomics I
- (See Notes 4 and 5 above)

#### 12 units

- COMMERCE 1AA3 Introductory Financial Accounting (or 2AA3)
- COMMERCE 2AB3 Managerial Accounting I
- COMMERCE 3AB3 Intermediate Financial Accounting I
- COMMERCE 3AC3 Intermediate Financial Accounting II

#### 6 12 units

#### from

- COMMERCE 4AA3 Managerial Accounting II
- COMMERCE 4AC3 Advanced Financial Accounting
- COMMERCE 4AD3 Introduction to Auditing
- COMMERCE 4AF3 Accounting Theory
- COMMERCE 4SB3 Introduction to Canadian Taxation
- COMMERCE 4SC3 Advanced Canadian Taxation
- COMMERCE 4AX3 Special Topics in Accounting

Rationale: The Faculty of Social Sciences has introduced changes to their Economics course offering and will be cancelling ECON 2G03/2X03 and 2GG3; and will instead offer ECON 2Z03 and 2ZZ3. Furthermore, students completing a Minor in Accounting and Financial Management Services may be interested in pursuing the Chartered Professional Accountants (CPA) designation, which only requires completion of ECON 1B03 and 1BB3. Thus, due to changes in Economics course offering and student interest in pursuing the CPA designation, the proposed curriculum change requires six units of Economics courses (ECON 1B03 and 1BB3) and six additional units in advanced elective accounting courses.

### **Minor in Business**

### Notes

- 1. The Minor is not open to students registered in any Commerce or Engineering and Management program.
- 2. Enrolment in each of the Commerce courses comprising the Business Minor, (excluding students registered in Engineering and Management, Commerce and Labour Studies students enrolled in COMMERCE 1BA3 (or 2BA3) and 2BC3 and students admitted to the Minor in Finance, the Minor in Accounting and Financial Management Services, or the Minor in Information Systems) is limited to 40 students who are registered in a four-or five-level McMaster degree program. Places in these courses will be allocated on a first-come, first-served basis.
- 3. COMMERCE 2FA3 and 2MA3 require completion of ECON 1B03 with a minimum grade of B- as a prerequisite; or completion of ECON 2G03 or 2X03 with a minimum grade of B- as a prerequisite.
- 4. For purposes of the Business Minor, ECON 2I03 will be accepted as a substitute for COMMERCE 2FA3. STATS 2B03 will be accepted as a substitute for STATS 1CC3. All courses listed as anti-requisite for COMMERCE 2QA3 in the Course Listings section of the Undergraduate Calendar will be accepted as a substitute for COMMERCE 2QA3.
- 5. For those taking COMMERCE 2FA3 and/or 3FA3, it is strongly recommended that MATH 1M03 be completed.
- 6. Students who completed course requirements for the Minor in Business prior to September 2014 should consult the undergraduate calendar for the year(s) in which the coursework was completed.

# Requirements

24 units total

#### from

- COMMERCE 1AA3 Introductory Financial Accounting (or 2AA3)
- COMMERCE 1BA3 Organizational Behaviour (or 2BA3)
- ECON 1B03 Introductory Microeconomics

### 18 units

#### from

- COMMERCE 2AB3 Managerial Accounting I
- COMMERCE 2BC3 Human Resource Management and Labour Relations (or COMMERCE 3BC3)
- COMMERCE 2FA3 Introduction to Finance
- COMMERCE 2KA3 Information Systems in Business (or COMMERCE 2QB3)
- COMMERCE 2MA3 Introduction to Marketing
- COMMERCE 2OC3 Operations Management
- COMMERCE 2QA3 Applied Statistics for Business
- COMMERCE 3FA3 Managerial Finance
- COMMERCE 3MC3 Applied Marketing Management (See Note 4 3 above)

Rationale: Removing references to ECON courses that are no longer offered.

#### **Minor in Finance**

The School of Business will admit a maximum of 30 students to the Minor in Finance each year. Admission decisions are made on behalf of the Undergraduate Recruitment, Admissions, and Student Affairs Committee of the DeGroote School of Business.

#### Notes

- 1. Application for admission (forms available from the Student Experience Academic Office) must be submitted to the Student Experience Academic Office by **April 30**.
- 2. Students seeking the Minor must have completed ECON 1B03 and 1BB3 with an average of at least 7.0; or completion of ECON 2G03 or 2X03 with a minimum grade of B.
- 3. The Minor is not open to students registered in any Commerce or Engineering and Management program.
- 4. Students seeking to obtain the Minor must complete either ECON 2G03 or 2X03, and both ECON 2B03 and 2H03 before undertaking any Level III or Level IV Finance courses.
- 5. For the purposes of this Minor, all courses listed as anti-requisite for COMMERCE 2QA3 in the Course Listings section of the Undergraduate Calendar will be accepted as a substitute for ECON 2B03.
- 6. For those taking COMMERCE 2FA3 and/or 3FA3, it is strongly recommended that MATH 1M03 be completed.

# Requirements

### 33 30 units total

### 6 units

- ECON 1B03 Introductory Microeconomics
- ECON 1BB3 Introductory Macroeconomics

- ECON 2G03 Intermediate Microeconomics I
- ECON 2X03 Applied Business Economics (See Note 4 above)

### 6 units

- ECON 2B03 Analysis of Economic Data
- ECON 2H03 Intermediate Macroeconomics I (See *Notes 4* and *5* above)

# 9 units

- COMMERCE 1AA3 Introductory Financial Accounting (or 2AA3)
- COMMERCE 2FA3 Introduction to Finance or
- ECON 2I03 Financial Economics
- COMMERCE 3FA3 Managerial Finance

### 9 units

• Levels III, IV Finance courses open to Commerce students

Rationale: Removing ECON reference as it has been removed from the Calendar.

### **Minor in Innovation**

The minor in innovation is a partnership between the Faculty of Engineering and the DeGroote School of Business and is intended for students from all Faculties who wish to learn more about innovation and develop a level of innovation literacy, as well as those who are themselves innovators and wish to develop skills to create their own enterprise. To meet these varied needs, the minor includes a wide range of courses in innovation and may be taken as a course only option, or may include a practicum.

# Requirements

24 units total

### 6 units

- INNOVATE 1X03 The World of Entrepreneurship
- INNOVATE 2X03 Lean Startup

### 6 units

### from

- INNOVATE 2Z03 Sprint Methodologies
- INNOVATE 3X03 Persuasion, Pitching Skills and Marketing
- INNOVATE 3Z03 From Founder to CEO
- INNOVATE 3ZZ3 Imagining and Shaping the Future

#### from

- COMMERCE 2AB3 Managerial Accounting I
- COMMERCE 3MA3 Marketing Research
- COMMERCE 3S03 Management Skills Development
- COMMERCE 4AK3 Accounting Information for Decision Making
- COMMERCE 4BB3 Recruitment and Selection
- COMMERCE 4BK3 The Management of Technology
- COMMERCE 4BN3 Leadership Development
- COMMERCE 4FO3 Small Business and Entrepreneurial Finance
- COMMERCE 4FV3 Venture Capital
- COMMERCE 4FW3 Finance for Entrepreneurs
- COMMERCE 4KF3 Project Management
- COMMERCE 4KH3 Strategies for Electronic and Mobile Business
- COMMERCE 4KI3 Business Process Management
- COMMERCE 4MC3 New Product Marketing
- COMMERCE 4ME3 Sales Management
- COMMERCE 4PA3 Business Policy: Strategic Management
- COMMERCE 4SA3 International Business
- COMMERCE 4SD3 Commercial Law
- COMMERCE 4SE3 Entrepreneurship
- COMPSCI 4EN3 A/B Software Entrepreneurship
- ENGNMGT 4A03 Innovation Driven Project Development and Management
- HISTORY 2EE3 Science and Technology in World History
- HISTORY 3UA3 The History of the Future
- HTHSCI 4ID3 Innovation By Design
- INNOVATE 3EX3 Experiential Learning in Innovation
- INNOVATE 4EX6 A/B Founders Startup
- SUSTAIN 3S03 Implementing Sustainable Change

Rationale: COMMERCE 4AK3 is on the list and COMMERCE 2AB3 is an anti-requisite to 4AK3. Removing 2AB3 and adding COMMERCE 4SA3 because it's relevant content.

#### **REVISIONS TO EXISTING CERTIFICATES**

#### **Certificate in Business Technology Management (BTM)**

#### Notes

- 1. The courses comprising the BTM certificate will count as elective courses for students enrolled in the an Honours Bachelor of Commerce (B.Com.) program.
- 2. SFWRTECH 3IT3 and SFWRTECH 3PR3 are anti-requisites.

#### Admission

Enrolment in the an Honours Bachelor of Commerce (B.Com.) program is required for admission to the certificate.

#### Requirements

27 units total

#### 21 units

• COMMERCE 3KA3 – Systems Analysis & Design

- COMMERCE 3KD3 Database Design Management & Applications
- COMMERCE 3KE3 Management of Enterprise Data Analytics
- COMMERCE 4KF3 Project Management
- COMMERCE 4KG3 Data Mining and Business Intelligence
- COMMERCE 4KH3 Strategies for Electronic and Mobile Business
- COMMERCE 4KI3 Business Process Management
- SFWR TECH 3OS3 Operating Systems
- One of:
  - SFWR TECH 3IT3 Networking Principles
  - SFWR TECH 3PR3 Procedural and Object-Oriented Programming Concepts

#### 6 units

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 4KI3 Business Process Management
- COMMERCE 4BK3 Strategic Management of Technology
- COMMERCE 4MH3 Electronic Marketing
- SFWR TECH 3CS3 Computer Security
- SFWR TECH 3IT3 Networking Principles
- SFWR TECH 3OS3 Operating Systems
- SFWR TECH 3PR3 Procedural and Object-Oriented Programming Concepts
- SFWR TECH 3RQ3 Software Requirements and Specification
- SFWR TECH 4SD3 Software Design

Rationale: On July 3<sup>rd</sup>, 2018, the IS Area submitted the necessary paperwork to have the BTM certificate at the DeGroote School of Business officially "BTM Recognized" by BTM Forum. Upon review by BTM's accreditation committee, various recommendations were suggested in order to make the requirements of the certificate worthy of BTM Recognition status. The changes described below summarize the changes requested by BTM Forum and the collective agreed-upon response from the IS Area. Please note that all faculty members within the IS Area were supportive of these changes to the BTM certificate.

The BTM review team suggested we make Comm 3KA3 and Comm 4KI3 mandatory courses for the BTM certificate. The IS Area was in 100% agreement with this recommendation and we stated in our response to the BTM review team that we would revise the requirements of the certificate accordingly. However, to accommodate this change, the IS Area has agreed to remove SFWR TECH 3OS3 as a mandatory course. This is to keep the number courses for the certificate at nine to keep the number of required courses for the certificate at a reasonable number. The IS Area also agreed to removing Commerce 4BK3 and Commerce 4MH3 as elective courses in order to ensure that students perusing the BTM certificate would pursue more technical courses.

The above changes to the certificate were agreed upon by the IS Area and submitted to BTM Forum for their review of our application to get the BTM certificate officially "BTM Recognized" in November. The BTM Forum will review this submission sometime in January, but it is expected to pass, based on email correspondence with BTM executives, since the only surmountable issue was in regard to making 3KA3 and 4KI3 part of the mandatory certificate requirements.

#### **COURSE DELETIONS**

N/A





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

- 1. All sections of this form <u>must</u> be completed.
- 2. This form must be completed <u>for all</u> course changes.
- 3. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Aaron Schat

Extension: 23946

4. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Submitted by which area group (select one):  Strategic Management  Marketing  Health Policy and Management  Accounting and Financial Management Services  Finance and Business Economics  Human Resources and Management  Information Systems  Operations Management		
Joint Areas (please specify):  Proposed Course Details:  Course Title: Global Business Experience Instructor(s): Benson Honig Prerequisites: Registration in Level II or above in the Integrated Business and Humanities Program	Course Code: Credit Value:	IBH 2AF3 3

**Rationale**: Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.

This is a new course that is to be included in the Integrated Business and Humanities (IBH) program. Course Description: Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines). This course has two main objectives: 1) is to understand the role that business plays in the global economy, especially its role in global poverty as well as global peace by immersing students in an international learning experience. 2) For students to understand the historical, sociological, and economic impact in order to assess economic development projects in a developing country. In this course students will learn how globalization connects the developed and developing worlds; how business and the economy maintain structural inequalities and global wealth disparities; the global economic, social, and environmental impact of Western business decisions; the historical, political, geographical, gendered, and cultural context in which business operates, and the impact of economic development policies. Statement of purpose (How does the course fit into the Faculty's programme?): This is a required course in the Integrated Business and Humanities program Method of presentation of course material: Lectures, Seminar, Site Visits, Experiential Learning Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Class participation, Reflexive Summaries of program, Reflexive Diaries, group experiential engagement, and active learning through practice and critical inquiry To prevent overlap, is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)?  $\boxtimes$  not offered elsewhere If the proposed course is to be cross-listed in another department/faculty, please attach relevant correspondence with the department/faculty. not cross-listed elsewhere If this course is intended primarily for students outside the DeGroote School of Business, have you the support of the department concerned?  $\bowtie$  not intended for students outside the faculty A **draft course outline** is attached to this form. X Yes it is included. Configuration for Mosaic Course Catalog

(For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)  Note regarding Personal Interest Courses (PIC): All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.  Is a Registrar-scheduled exam required?  What is the grading basis for the course?  Standard (A+ to F) Pass/Fail Other (specify): Credit/No Credit  Is this course repeatable for credit?  Is permission required to enrol in the course?  No Yes, to a maximum of units.  Yes; department permission Yes; instructor permission	Component(s) required: Check all that apply to a maximum of 3. All components used in the central in the course. For example, if a course is approved with lecture a students will not be able to enrol into the course. The components configured in Mosaic should also match the calenda tutorials); one term" is used, then lectures and tutorials should be used.	and tutorial components and the tutorial is not scheduled, ar description (i.e. if the phrase "Three hours (lectures,	
Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.  Is a Registrar-scheduled exam required?  What is the grading basis for the course?  Standard (A+ to F) Pass/Fail Other (specify): Credit/No Credit  Is this course repeatable for credit?  No Yes, to a maximum of units.  Is permission required to enrol in the course?  Yes; instructor permission	· · · · · · · · · · · · · · · · · · ·		
All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.  Is a Registrar-scheduled exam required?  What is the grading basis for the course?  Standard (A+ to F) Pass/Fail Other (specify): Credit/No Credit  Is this course repeatable for credit?  Is permission required to enrol in the course?  No Yes, to a maximum of units.  Is permission required to enrol in the course?  Yes; instructor permission	(For the primary component, how many seats per section would an	60	
What is the grading basis for the course?  □ Standard (A+ to F) □ Pass/Fail □ Other (specify): Credit/No Credit  Is this course repeatable for credit? □ No □ Yes, to a maximum of units.  Is permission required to enrol in the course? □ Yes; department permission □ Yes; instructor permission	All undergraduate courses will be eligible for PIC unless they use a fie		
Is this course repeatable for credit?          □ Yes, to a maximum of units.          Is permission required to enrol in the course?          □ No  □ Yes; department permission  □ Yes; instructor permission	Is a Registrar-scheduled exam required?	☐ Yes ⊠ No	
Is permission required to enrol in the course?  No Yes; department permission Yes; instructor permission	What is the grading basis for the course?	☑ Other (specify):	
☐ Yes; department permission ☐ Yes; instructor permission	Is this course repeatable for credit?	⊠No ☐Yes, to a maximum of units.	
Is this a multi-term (A/B) course?	Is permission required to enrol in the course?	$\square$ Yes; department permission	
	Is this a multi-term (A/B) course?	☐ Yes ☒ No	

# IBH 2AF3 Global Business Course Outline

# OB/HR/Management DeGroote School of Business McMaster University

#### Course Description

In this course students will gain an understanding of the context in which the current business environment and economic system have historically evolved, and continue to operate in the global economy through an immersive international learning experience in a 10-day trip to a developing country. During this trip students will experience the vibrant local culture, see the incredible biodiversity of the country, and meet with local businesses, communities as well as international organizations that operate on international development projects. Through experiential immersion, the course seeks to give students an appreciation for the interconnectedness of the developed and developing worlds as well as between poverty and other social and environmental issues such as poverty exploitation, environmental degradation, conservation, and other pressing problems. Ultimately, the course aims to foster a sense of solidarity with the people and places around the world that are impacted by Western business practices so that future business leaders and policymakers will make decisions in the service of global peace and justice. The experiential elements of this course will also be actively utilized in an advanced third year course where students will begin to evaluate and design economic development projects (IBH 3BA3).

#### **Required Readings**

- Becker, M. (2011). Correa, indigenous movements, and the writing of a new constitution in Ecuador. *Latin American Perspectives*, *38*(1), 47-62.
- Belfrage, C (1973;1997) Open Veins of Latin America: Five centuries of the Pillage of a Continent. Monthly Review Press; New York. Chapter 1 Lust for Gold; Lust for Silver pp 11-58
- Dees, J. G. (2017). 1 The Meaning of Social Entrepreneurship. In *Case Studies in Social Entrepreneurship* and Sustainability (pp. 34-42). Routledge
- Emas, R. (2015). The concept of sustainable development: Definition and defining principles. *Florida International University*.
- Gachet, I., Grijalva, D. F., Ponce, P. A., & Rodríguez, D. (2017). Vertical and horizontal inequality in Ecuador: The lack of sustainability. *Social Indicators Research*, 1-40.
- Hayes, M. (2015). 'It is hard being the different one all the time': gringos and racialized identity in lifestyle migration to Ecuador. *Ethnic and Racial Studies*, *38*(6), 943-958.
- Karl, T. L. (2003). The vicious cycle of inequality in Latin America. What justice? Whose justice? Fighting for fairness in Latin America, 133-157.
- Ospina Peralta, P., & Hollenstein, P. (2014). Territorial coalitions and rural dynamics in Ecuador: why history matters. *World Development*
- PERREAULT, Thomas. Changing places: transnational networks, ethnic politics, and community development in the Ecuadorian Amazon. *Political Geography*, 2003, vol. 22, no 1, p. 61-88.
- Schaefer, K., Corner, P. D., & Kearins, K. (2015). Social, environmental and sustainable entrepreneurship research: what is needed for sustainability-as-flourishing?. *Organization & environment*, 28(4), 394-413.
- Weisenborn, Greg, "United Nations Sustainable Development Goals" (2018). Times Talk Archive. 81. https://scholars.fhsu.edu/times\_talk\_archive/81

Custom Courseware - Cases and Readings	
<ul> <li>ECO TASAR SILK: SALES FORCE CALLING IT QUITS</li> <li>RUNA: DRIVING SOCIAL CHANGE THROUGH PASSION AND PROFIT</li> <li>WATER FUNDS: FINANCING NATURE'S ABILITY TO PROTECT WATER SUPPLIES</li> <li>Social entrepreneurship: Creating new business models to serve the poor. This is an article by Christian Seelos and Johanna Mair in Business Horizons (2005) 48, 241—246</li> </ul>	

#### SUPPLEMENTARY READINGS:

- Banerjee, Abhijit, and Esther Duflo. Poor economics: A radical rethinking of the way to fight global poverty. New York: PublicAffairs, 2012
- Bornstein, David. How to change the world: Social entrepreneurs and the power of new ideas. Oxford University Press, 2007.
- Diamond, Jared. Guns, germs, and steel: The fates of human societies. New York: W.W. Norton & Company, 1999.
- Elkington, John, and Pamela Hartigan. The power of unreasonable people: How social entrepreneurs create markets that change the world. Harvard Business Press, 2008.
- Kotler, Philip T., and Nancy R. Lee. Up and out of poverty: The social marketing solution. Upper Saddle River, NJ: Pearson Prentice Hall, 2009.
- Kristof, Nicholas D., and Sheryl WuDunn. Half the sky: Turning oppression into opportunity for women worldwide. New York: Vintage Books, 2010.
- Moyo, Dambisa. Dead aid: Why aid is not working and how there is a better way for Africa. New York: Farrar, Straus, and Giroux, 2009.
- Radjou, N., Prabhu, J., & Ahuja, S. (2012). *Jugaad innovation: Think frugal, be flexible, generate breakthrough growth*. John Wiley & Sons.
- Sachs, Jeffrey D. The end of poverty: economic possibilities for our time. New York: Penguin, 2006. Sinek, Simon. Start with why: How great leaders inspire everyone to take action. New York: Penguin, 2011.
- Stiglitz, Joseph E. Globalization and its Discontents. New York: W.W. Norton & Company, 2002. Yunus, Muhammad. Creating a world without poverty: Social business and the future of capitalism. New York: PublicAffairs, 2007.

#### Evaluation

The final grade for this course will be calculated as follows:

Pre Trip Assignment (group)	25%
Case Presentations (group)	25%
Classroom Discussions (individual)	20%
Reflections (individual)	30%
Total	100%

**Pre Trip Assignment (25%):**You will be required to evaluate and present a written brief summary of an international development project, ideally in Ecuador, but otherwise in Latin America

Classroom discussion (20%): Classroom discussion represents a unique opportunity to develop and enhance your confidence and skill in articulating a personal position, reacting to new ideas, and receiving and providing critical feedback from a group of assertive and demanding colleagues. Much of your learning will come from these classroom experiences. Classroom engagement comprises two components: classroom discussion of cases and daily discussions and evaluations of experiential learning during in site visit

You are expected to come to each class, having read cases and assigned readings and with a readiness and willingness to contribute to the class discussion. Your contribution to the learning of others, through the experience and insights you share is a key part of this learning process. Contribution will be graded based on quality, quantity and consistency. Some of the things that will determine a contribution include:

- " Are you listening, not just for a few minutes, but the duration of the class?
- Are your contributions relevant to the discussion? Do your comments relate to the comments of others and to the themes that the class is exploring together? Do you build on the class discussion?
- " Do your comments add to our understanding of the situation? Are you incisive? Do you cut to the core of the problem?
- Are you willing to challenge the ideas that are being expressed in the classroom?
- " Are you willing to test new ideas or are all comments "safe"?
- " Do you bring in your own experience, personal or professional, in order to add value to the class discussion

Participation will be graded using a peer grading system that each student will participate in at most once throughout the course.

#### Case Presentations [25%]

This will be an on-site (e.g. overseas) component of the course. Each group will be responsible for leading at least one assigned case. Groups will be evaluated on their clarity, consistency, and ability to relate the material in the case to observed activity in the field.

#### Reflections [30%]

A key aim of this course is to provide the opportunity for students to think critically about issues presented and their experiences, particularly during the 10 day trip. Each student will be responsible for diarizing their daily activities,

providing a thorough, critical, and thoughtful summation of their experiences on the trip. Students are encouraged to actively reflect on what they have learned during the pre-trip seminars, as well as regarding the cases. At the conclusion of the course, students will submit structured reflections.

This reflection assignment is based in experiential learning as theorized by Kolb and Kolb. Engaging in such a structured reflection helps draw meaning from experiences so that they can shape future learning.

Submissions will only be accepted through Avenue. Reflections must be no more than 4 pages, 12 point Times New Roman font, 1.5 line spacing, and 1 inch margins. Reflections should be submitted in Word (or equivalent) format. Late submissions will be penalized at 10% a day. A rubric is viewable in Avenue.

Please acknowledge intellectual debts and facts and figures in your reflection using a superscript number and endnotes to reports. Draw on the library citation guide

(https://library.mcmaster.ca/sites/default/files/businesscitation.pdf) paying particular attention to page 6 and page 15 for endnote and citation support.

#### **Grade Conversion**

AT THE END OF THE COURSE YOUR OVERALL PERCENTAGE GRADE WILL BE CONVERTED TO YOUR LETTER GRADE IN ACCORDANCE WITH THE FOLLOWING CONVERSION SCHEME.

PASS: 60 PERCENT OR HIGHER FAIL: UNDER 59 PERCENT

# Course Schedule

Pre-course seminar: 2 - 3 hour sessions will be devoted to preparing the students to maximize there experiential learning. All mandatory readings will be summarized and discussed in these two seminars.

The first seminar will focus on Ecuadorian history and economic situation.

The second seminar will focus on social and international development issues, so that the students can be familiarized with various approaches before going on their experiential trip.

Following, the students will engage on their 10 day trip

Upon return, there will be a 3 hour seminar to reflexively evaluate their experiences.





# RECOMMENDATION FOR CHANGE IN **UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal**

## **DeGroote School of Business McMaster University**

- 5. All sections of this form must be completed.
- This form must be completed for all course changes. 6.
- If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Stephen Heathorn (Chair)

Extension: 24850

A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Submitted by	which area group (select one):		
Strategic N	Management		
■ Marketing			
Health Poli	icy and Management		
Accounting	g and Financial Management Services		
Finance an	d Business Economics		
Human Re	sources and Management		
Informatio	n Systems		
Operations	s Management		
	(please specify): Department of History	at the Faculty of Human	ities
_	-	•	
Proposed Cour	rse Details:		
Course Title:	History of Capitalism	Course Code: Credit Value:	IBH 2BF3

Prerequisites: Registration in Level II or above in the Integrated

**Business and Humanities Program** 

Rationale: Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.

ourse Descripti	on: Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines).
characteristics opportunities	Capitalism from 1500 to the present. This team-taught course introduces students to s of capitalism, core institutions, and explanations for periodic crises. There are to read selections from leading proponents, agents, critics, and reformers. Essay topics ted with students, so that there will be an alignment with their programme/faculty.
Statement of pu	rpose (How does the course fit into the Faculty's programme?):
This is a requi	red course in the Integrated Business and Humanities program
Method of prese	entation of course material:
Lectures	
Method of evalu Essays and ex	nation (exams, essays, assignments, group projects, class participation, etc.): cams
	<b>ap</b> , is a similar course being offered elsewhere on campus? If so, please attach any relevant with the other area(s) or department(s)? $\boxtimes$ not offered elsewhere
	course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with faculty.  not cross-listed elsewhere
This course w	ill be cross-listed with HISTORY 2KK3 – History of Capitalism
	ntended primarily for students <b>outside the DeGroote School of Business</b> , have you the support of the cerned?   not intended for students outside the faculty
A draft course o	utline is attached to this form. 🔀 Yes it is included.

Component(s) required: Check all that apply to a maximum of 3. All components used in the call enrol in the course. For example, if a course is approved with lecture a students will not be able to enrol into the course. The components configured in Mosaic should also match the calendar tutorials); one term" is used, then lectures and tutorials should be used.  Lecture Tutorial Lab Seminar Field Study Project Thesis Work Experience	nd tutorial components and the tutorial is not scheduled, description (i.e. if the phrase "Three hours (lectures, d in Mosaic.)
Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)	60
Note regarding Personal Interest Courses (PIC): All undergraduate courses will be eligible for PIC unless they use a field component. Additionally, students are not eligible to use the PIC option	
Is a Registrar-scheduled exam required?	⊠ Yes □ No
What is the grading basis for the course?	Standard (A+ to F) □ Pass/Fail     Other (specify):
Is this course repeatable for credit?	⊠No □Yes, to a maximum of units.
Is permission required to enrol in the course?	<ul><li>☑ No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>
Is this a multi-term (A/B) course?	☐ Yes ☒ No

# IBH 2BF3: A History of Capitalism Course Outline

#### Course Perspectives

The History of Capitalism is one of the most relevant subjects for our times and deserves a careful, cautious discussion of what is currently known about its actual development. Theories are helpful for the speculation that generates questions and new topics. Therefore, a number of leading economic theories will be reviewed, although the position taken here is that the force of geographic, geopolitical, political, and dynamic-innovation factors have varied so widely across space and time that there seems no prospect for a general theory to cover a multiplicity of cases and places. Moreover, because of the importance of the state in sustaining the necessities for capitalism (*inter alia:* private property rights, contracts enforceable by third parties, markets with responsive prices) the course is Eurocentric and even somewhat Anglo-centric because the great empires of Asia (Ottoman, Safavid, Mughal, Ming-Qing) had to contend with undefeated nomadic predators within and without, and with succession crises. These England escaped after 1688.

By capitalism we mean the production of goods for exchange by capitalists/entrepreneurs who combine capital with labour "bought" from "free" labour. The "free labour" condition admittedly presents complications, because the slave trade in unfree labour was carried on in a capitalist fashion. Expect subtle and fact-laden explorations rather than tidy discussions. Historically, the dynamic implied in capitalism effected displacements of custom and command as the means for dealing with scarcity; displacements of custom have had deleterious consequences for particular groups but also have upset the unearned takings of 'rent-seekers.' Many elites in the past and in recent times have been prodigious rent-seekers rather than capitalists, a point made by Keynes. We will indicate the uneven development of markets that supported the exchange of goods, labour, and finance, and that enabled wealth accumulation and further innovations. Capitalism gets credit for accelerated world growth rates since the early 19<sup>th</sup> century and for tackling inefficiencies and privileges, but there is also agreement on its dangerous volatility and on the social disruptions of 'creative destruction.'

Our description of capitalism for this course implies the scope for diverse and incomplete experiences favoured in recent scholarship in global economic history [see *The Cambridge History of Capitalism* volumes 1 and 2 (2014); Kevin O'Rourke and Ronald Findlay, *Power and Plenty: Trade, War, and the World Economy in the Second Millennium* (2007)].

#### Part 1: The Setup for Understanding:

Text for this section and the next is Jürgen Kocka, Capitalism a Short History (Princeton, paperback edition, 2018)

#### Week 1

**Defining Capitalism** 

A Lumpy History: What, where, and when. A Lumpy History: Where not and why not.

#### Week 2

Conflicting Theorists: Mill, Marx, Schumpeter.

Part 2: Before Capitalism

#### Week 3

Rome, China, India, and Africa.

#### Week 4

The Via Italia: Long-distance Trade, Accounting, and 'Finance.'

#### Week 5

The Low Countries: Civic Merchant Competition and the Diffusion of Finance.

Advantage England: The English Fiscal Military State; the Fiscal Problems of Empires.

The Exceptionalism of the North Sea in world economic history.

# Part 3: Capitalism's Patterns in Economic History, 1650-1850 Text for this section is R.C. Allen, *The British Industrial Revolution in Global Perspective* (Cambridge, paperback, 2009).

#### Week 6

The English Industrial Revolution and its Export. The Possible Marginal Importance of Industrialisation for a History of Capitalism.

Colonisation, Property Rights, and Commodities.

#### Week 7

Unfree Labour in Relation to Capitalism. Indigenous Depopulation, *Encomienda* Consolidation, Slavery, and Indentured Labour.

Wage Labour before and after 1848. Marx and the Labour Theory of Value.

#### Part 4: Up and Running, 1850-present

<u>Text for this section is the winner of the 2010 Pulitzer Prize for History, Liaquat Ahamed, Lords of Finance</u>
(Windmill, paperback, 2010)

#### Week 8

Fulfilment and Crises in America.

The Prodigious Capacity to Innovate: Agriculture and Law.

#### Week 9

The Prodigious Capacity to Innovate: The Second Industrial Revolution.

#### Week 10

The Prodigious Capacity to Innovate: Finance Capital and Global Integration.

#### Week 11

War and Capitalism in the Twentieth Century.

War and the Reconstruction of Capitalism in the Twentieth Century

#### Week 12

The Oil Shocks, the Demise of Global Management, and the Great Financial Crisis Summary Issues: *Homo socialis*, obligations, ethics, and distributive justice.

#### Week 13

Review

#### Assignments

Kocka: 1000 words; 20%.

Kocka organises his book around the idea that discussions of "capitalism" have a dual lineage or two paths of discussion, one that come from critiques and one that comes from analysis. Discuss how he presents these two perspectives in a dynamic and ever changing relationship.

Allen: 1000 words: 20%.

Allen marginalises the importance of science in contributing to the industrial revolution. What principle circumstances unique to England does he credit with making England the only possible site for the revolution?

Ahamed: 2000 words: 25%.

Select one of four central bankers and, using Ahamed's book, write a report that explains that individual's role in the liquidity crisis that precipitated the Great Depression and provide a plausible course of action by that individual that might have averted the crisis.

Exam: 35%.





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

- 9. All sections of this form <u>must</u> be completed.
- 10. This form must be completed <u>for all</u> course changes.
- 11. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Alpha Abebe

Extension: 27067

Submitted by which area group (select one):

12. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Strategic Management		
Marketing		
Health Policy and Management		
Accounting and Financial Management Services		
Finance and Business Economics		
Human Resources and Management		
Information Systems		
Operations Management		
☐ Joint Areas (please specify): <b>Faculty of Humanities</b>		
Proposed Course Details:		
Course Title: Relationship Management	Course Code:	IBH 3AA3
Instructor(s): <b>TBD</b>	Credit Value:	3
Prerequisites: Registration in Level 3 of the Integrated Business and		
Humanities Program		

Rationale: Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale. This is a new course that is to be included in the Integrated Business and Humanities (IBH) program. Course Description: Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines). Team work, conflict management, negotiation, giving and receiving feedback, communicating vision and expectations these are all key elements of leadership. Ultimately, succeeding in these areas is about managing relationships. Building upon the foundational elements of leadership already acquired, students will gain a deeper awareness of their own and others' motivations, strengths, filters, and responses to conflict, of and how to apply this knowledge to communicate effectively. Statement of purpose (How does the course fit into the Faculty's programme?): This is a required course in the Integrated Business and Humanities program Method of presentation of course material: Lectures Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Reflections, project logbook, presentations, interview, leadership dossier, and participation To prevent overlap, is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)?  $\boxtimes$  not offered elsewhere If the proposed course is to be cross-listed in another department/faculty, please attach relevant correspondence with the department/faculty.  $\square$  not cross-listed elsewhere This course will be cross-listed with LINGUIST 4R03 - Cross-Cultural Communication If this course is intended primarily for students outside the DeGroote School of Business, have you the support of the department concerned? \( \) not intended for students outside the faculty A **draft course outline** is attached to this form.  $\boxtimes$  Yes it is included. Configuration for Mosaic Course Catalog

Component(s) required: Check all that apply to a maximum of 3. All components used in the component in the course. For example, if a course is approved with lecture a students will not be able to enrol into the course. The components configured in Mosaic should also match the calendar tutorials); one term" is used, then lectures and tutorials should be used.	nd tutorial components and the tutorial is not scheduled, description (i.e. if the phrase "Three hours (lectures,
□ Lecture    □ Tutorial    □ Lab    □ Seminar    □ Field Study    □     □ Project    □ Thesis    □ Work Experience	Independent Study 🗆 Placement
Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)	60
Note regarding Personal Interest Courses (PIC): All undergraduate courses will be eligible for PIC unless they use a field component. Additionally, students are not eligible to use the PIC option	7. 1
Is a Registrar-scheduled exam required?	☐ Yes ⊠ No
What is the grading basis for the course?	<ul><li>             ⊠ Standard (A+ to F) □ Pass/Fail □ Other (specify):         </li></ul>
Is this course repeatable for credit?	□No □Yes, to a maximum of units.
Is permission required to enrol in the course?	<ul><li>☑ No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>
Is this a multi-term (A/B) course?	☐ Yes ⊠ No

#### **IBH 3AA3: Relationship Management**

#### **HUMAN 4LM3 – Reimagining Leadership**

#### **Course Objectives**

This course gives students an opportunity to continue developing your leadership skills. In this course, we will explore some of the hands on skills that leaders need and some of the issues leaders often face – communicating with diverse people, handling conflict, group work, coaching, giving feedback, motivational styles, accountability and ownership, etc. This course is not about giving students textbook answers, but about exploring the complexity of leadership together through discussion and reflections.

The foundation of this course is based upon "Core Strengths" (a program offered through Personal Strengths Publishing, Inc.). This program involves a self-assessment and accompanying curriculum that helps students identify their own and others' motivational value systems, learn to access the full range of strengths available to them, manage their own perceptual filters and negotiate relationships and conflicts.

Because of the nature of this course, attendance and active participation in class is essential. Class time is 2 hours per week with an additional hour for mentorship or coaching. Substantial additional time will be needed for reading, preparing, and reflecting.

#### Textbooks, Materials, and Fees

- 1. The Student Leadership Practices Inventory 360 Purchased Online \$14 US.
- 2. Core Strengths Assessment and Materials Package \$190 value; provided free this year.
- 3. Book(s) of your choice on leadership as chosen by your group.

#### <u>Assessment</u>

#### 1) Vision Statement = 10%

At the beginning of the course, after choosing your leadership project for the term, you will craft a vision statement for two different audiences. You may do this as a team for a group grade.

#### 2) Course Reflections = 7x3 = 21%

Seven times throughout the semester, you will complete a guided reflection similar to the ones you completed in HUMAN 3LM3. In order to fill out several of these reflections, you will need to have completed the Core Strengths assessment and the Student Leadership Challenge LPI 360 assessment.

#### 3) Leadership Project Logbook = 14%

You will be provided with a logbook for tracking what happens with your project, making notes and doing some reflecting on your weekly activities with your team and any planning you do. This logbook will be checked for completeness and thoughtfulness during reading week and at the end of the semester.

#### 4) Presentation = 15%

You group will identify an area of leadership that you would like to learn more about from a suggested list. You will identify relevant books and articles related to your topic. Dividing them up, the group should pull together material from at least 2 books and 4 articles (these do not have to be scholarly but should be reputable). Together, you will prepare a 20 minute talk/lesson + 10 minute discussion on your topic and present it to the class. You will be evaluated by your peers. These presentations will be spread throughout the semester – who presents when will be determined by a combination of topic choice and preference.

#### 5) Informational Interview = 10%

You will identify a leader and request a short interview with them. You will prepare your questions in advance and share them with a classmate to evaluate their quality. You will then conduct your interview and write up a brief report on what you learned. This is a leadership related informational interview, not a general career related one.

#### 6) Leadership Dossier = 20%

The dossier will be a cross between the kind of portfolio you created for HUMAN 3LM3 and a kind of teaching dossier (except for leadership) put together by aspiring teachers or professors. You will be provided with instructions and a list of specific components to include such as cover letter, leadership philosophy statement, and evidence of competencies.

#### 7) Participation = 10%

Attendance and active participation in class will be assessed by the instructor and given a grade. If you have significant issues speaking up in class, please meet with me and we will figure out a way for you to participate that challenges you but doesn't completely freak you out.

#### **Course Schedule**

This schedule is tentative and will be adjusted based on where our discussions lead us and other circumstances.

#### Week 1

Syllabus overview

Leadership project explanation and work period

DUE: Vision statement for MELD students

#### Week 2

Review of 5 practices and how they will inform your leadership project.

Sharing visions and fine-tuning details.

DUE: Vision statement for MELD leadership team

#### Week 3

Adjusting to Leadership/Generational differences/Cultural differences

DUE: Complete SDI; Send out 360 invites

#### Week 4

Introduction to Core Strengths

Adjusting to Leadership/Generational differences

DUE: Reflection 1

#### Week 5

**Understanding Your Core** 

**DUE: Reflection 2** 

#### Week 6

**Presentation Skills** 

Informational interview questions review

Case studies

DUE: Reflection 3

#### Week 7

Presentation 1 & 2

Impact of Filters

#### Reading Week

DUE: 1st half of leadership logbook

DUE: Reflection 4

#### Week 8

Presentation 3 & 4

Accountability in Conflict

#### Week 9

Presentation 5 & 6

Working with Core Strengths – Overdone Strengths

**DUE: Reflection 5** 

# Week 10 Presentation 7 & 8 TBD DUE: Informational interview report DUE: Reflection 6 Week 11 Presentation 9 & 10 TBD DUE: Reflection 7 Week 12 Debrief and wrap up DUE: Leadership dossier DUE: 2<sup>nd</sup> half of leadership logbook





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

- 13. All sections of this form must be completed.
- 14. This form must be completed <u>for all</u> course changes.
- 15. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Manish Kacker

Extension: 21658

16. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Submitted by which area group (select one):		
Strategic Management		
Marketing		
Health Policy and Management		
Accounting and Financial Management Services		
Finance and Business Economics		
Human Resources and Management		
Information Systems		
Operations Management		
Joint Areas (please specify):		
Proposed Course Details:		
Course Title: Applied Marketing Management	Course Code:	IBH 3AB3
Instructor(s): Mandeep Malik	Credit Value:	3
Prerequisites: Registration in Level 3 of the Integrated Business and		
Humanities Program		

	Explain briefly the reasons behind the recommendation. If the course is being re-named, and new titles, and old and new course numbers. If the course is to be cancelled, state the
This is a n program.	ew course that is to be included in the Integrated Business and Humanities (IBH)
Course Des	cription: Provide a brief description to be included in the Undergraduate Calendar (max. 6
practical, and their major field	se builds upon material covered in Introduction to Marketing. It relies on real world case studies to develop students' marketing decision-making skills, ability to analyze the business environment in which organizations operate. A diproject, which has student teams working with businesses to audit current study the environment and develop a marketing plan, is a critical part of this
Statement o	of purpose (How does the course fit into the Faculty's programme?):
	of purpose (How does the course fit into the Faculty's programme?): equired course in the Integrated Business and Humanities program
This is a r	
This is a re	equired course in the Integrated Business and Humanities program
This is a re Method of p Lectures Method of c Class part	equired course in the Integrated Business and Humanities program  presentation of course material:  evaluation (exams, essays, assignments, group projects, class participation, etc.): icipation, hand-in written cases, marketing plan final report, in-class
This is a re Method of place tures Method of class part presentati	equired course in the Integrated Business and Humanities program  presentation of course material:  evaluation (exams, essays, assignments, group projects, class participation, etc.): icipation, hand-in written cases, marketing plan final report, in-class

f this course is intended primarily for students outside the DeGroote School of Business, have you the support of the department concerned?  not intended for students outside the faculty  A draft course outline is attached to this form.  Yes it is included.  Configuration for Mosaic Course Catalog  Component(s) required:  Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not schedule students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture  Tutorial  Seminar  Field Study Independent Study Placement  Project  Mork Experience  Default section size:  (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)  Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.  Is a Registrar-scheduled exam required?  What is the grading basis for the course?  Standard (A+ to F) Pass/Fail Other (specify):	component. Additionally, students are not eligible to use the PIC op	<ul><li>✓ Yes ☐ No</li><li>✓ Standard (A+ to F) ☐ Pass/Fail</li></ul>
A draft course outline is attached to this form.   Yes it is included.  Configuration for Mosaic Course Catalog  Component(s) required: Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not schedule students will not be able to enrol into the course. The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture   Tutorial   Lab   Seminar   Field Study   Independent Study   Placement Project   Thesis   Work Experience  Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)  Note regarding Personal Interest Courses (PIC): All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.	component. Additionally, students are not eligible to use the PIC op	
A draft course outline is attached to this form.    Yes it is included.  Configuration for Mosaic Course Catalog  Component(s) required: Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not schedule students will not be able to enrol into the course. The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture		otion for required (program) courses.
A draft course outline is attached to this form. Yes it is included.  Configuration for Mosaic Course Catalog  Component(s) required: Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not schedules students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture Tutorial Lab Seminar Field Study Independent Study Placement Project Thesis Work Experience  Default section size: (For the primary component, how many seats per section would an		
A draft course outline is attached to this form. Yes it is included.  Configuration for Mosaic Course Catalog  Component(s) required:  Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not schedules students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture Tutorial Lab Seminar Field Study Independent Study Placement	(For the primary component, how many seats per section would an	60
support of the department concerned?  not intended for students outside the faculty  A draft course outline is attached to this form.  Yes it is included.	Component(s) required: Check all that apply to a maximum of 3. All components used in the enrol in the course. For example, if a course is approved with lectur students will not be able to enrol into the course. The components configured in Mosaic should also match the calend tutorials); one term" is used, then lectures and tutorials should be a Lecture    Tutorial   Lab   Seminar   Field Study	re and tutorial components and the tutorial is not schedule dar description (i.e. if the phrase "Three hours (lectures, used in Mosaic.)
support of the department concerned? 🛛 not intended for students outside the faculty	Configuration for Massic Course Catalog	
	A <b>draft course outline</b> is attached to this form. 🔀 Yes	s it is included.

IBH 3AB3: Applied Marketing Management Course Outline Marketing Area DeGroote School of Business McMaster University

#### Course Objective

This course builds upon material covered in Introduction to Marketing. It relies on practical, real world case studies to develop your marketing decision-making skills, and your ability to analyse the business environment in which organisations operate. A major field project, which has student teams working with businesses to audit current practices, study the environment and develop a marketing plan, is a critical part of this course.

#### **Course Elements**

Credit Value:	3	Leadership:	Yes	IT skills:	No	Global view:	Yes
Avenue:	Yes	Ethics:	Yes	Numeracy:	Yes	Written skills:	Yes
Participation:	Yes	Innovation:	Yes	Group work:	Yes	Oral skills:	Yes
Evidence-based:	Yes	Experiential:	Yes	Final Exam:	No	Guest speaker(s):	No

#### Course Description

The purpose of this course is to explore practical applications of marketing concepts in business situations. Case studies are used to give practice in analyzing opportunities, solving marketing issues, and preparing implementation plans. This course is taught primarily through the case-method and an industry project but might also include readings, lectures, videos, and workshops.

## **Earning** Outcomes

The course will help you to:

- 1) Understand the application of basic marketing concepts;
- 2) Develop basic skills in marketing analysis, decision making and strategy formulation;
- 3) Test your skills in communicating analysis, conclusions, and recommendations; and
- 4) Understand the environmental, global, and ethical dimensions of marketing decision making given the dynamics of business markets and customer needs.

## Required Course Materials and Readings

Custom Courseware -Cases and Readings

# **Evaluation**

#### Components and Weights

A.	In-Class Contribution- Cases	20%
B.	Hand-In Case Completed by the Group	20%
C.	Marketing Plan Final Report	25%
D.	In-class First Oral Presentation	15%
E.	In-class Final Oral Presentation	20%

TOTAL: 100%

#### **4.** Class Participation and Contribution (20%)

It is our belief that highly interactive environments are the breeding grounds for excellence in stimulating idea generation, enhancing communication skills, improving analytical processes, fostering collaborative networks, testing assumptions, and having fun! This is also the time and place to develop the assertiveness and communication skills that are necessary for success in business. Consequently, we value and reward contribution. For our marketing class, contribution relates to:

- Being prepared for class discussion demonstrate good knowledge of case content;
- Offering case analysis in a critical and constructive manner;
- Eager / willing to debate issues using logic and integrating knowledge of basic marketing concepts; Listen and react to comments made by other students
- Your ability to communicate clearly (i.e., quantity of dialogue is not the same as quality);
- Demonstrate initiative to bring new and relevant knowledge to case / class discussion

#### B. Group Work

Groups will consist of five people (some exceptions will be made by instructor given class numbers). All members should be attending the same section.

80% of your mark in this course is teamwork so choose your fellow group members wisely. To encourage equal contribution, peer evaluation will be used to assess each member's work. Groups are encouraged to set some ground rules and expectations early in the term and to have a short feedback session following the completion of each assignment so that individuals are made aware if their input is less than expected by their team. An interim peer evaluation form (posted on Avenue) is to be submitted after interim presentations and a final peer evaluation form will be submitted along with the completed Marketing Plan. These two evaluations need only be submitted if the distribution is not equal, and must be signed by all in the presence of the TA / Instructor or a confirmation sent by each member using their McMaster University email account. (If you fail to do so, the professor will assign your evaluation marks as per his discretion based on information at his disposal.)Peer evaluations MUST be supported by documentation / emails that are evidence of feedback given and expectations set for the defaulting team member(s)

The result of this process is a true reflection of each group members' contribution to the project. Some members (i.e., those that contribute the most to the process) may find that their overall grade will go up as a result of the peer evaluation. Note: grades go up by no more than two grade points per student if the achieved score is B or lower; if your achieved score is B+ or higher the ratings can only add one grade point to your mark in the course. Others may find that their overall project grade will go down - note: the peer evaluation process can impact you negatively with no cap on the grades you can drop.

Past experience with groups has shown that most troubles arise because individuals do not respect the group process. The first group meeting should happen in the first two weeks. At this meeting, you might want to choose a coordinator who will facilitate the work. This is also a good time to set the parameters for group work such as: when and where the group will meet, attendance including punctuality, and preliminary assignment of tasks. You should also make a calendar of all "good" and "bad" times for the group (i.e., when group members have commitments to work, tests, major assignments, social commitments, holidays, etc.).

#### C. Hand-in Case (20%)

Your analysis should be <u>no more than ten pages plus any appendices</u> that you choose to include. Appendices consist of information that supports the body of your report but is too detailed or voluminous to include in the body. This is where any financial analysis, segmentation grids, decision matrices should be housed. Appendices must be referenced in the body of the report. D. Marketing Plan Each group of students will work with a "client" who needs a marketing plan completed. We have identified a number of businesses that would like to work with a group to complete a plan. Students are

also encouraged to develop their own leads. Each team project will be evaluated based on

- Interim presentation background information about the client organization and its current
  marketing practices along with an overview on strengths and weaknesses. Time limit of 12
  minutes plus three minutes for Q & A. DRESS CODE: SMART CASUAL / BUSINESS INFORMAL /
  FORMAL
- Final presentation will consist of current practices, SWOT and strategies <u>client should be invited</u>.
   Time limit of 20 minutes <u>plus</u> five minutes is kept aside for Q & A / discussion. DRESS CODE:
   BUSINESS FORMAL
- Final Report structure outlined in the following pages. Limit of FORTY PAGES including
  appendices but not cover page, table of contents, letter of cooperation etc

The two presentations will be made using the projectors and technology available in class. <u>Use of free software like Prezi and other web based apps that can compromise client confidentiality is NOT PERMITTED</u>. Please ensure that you DO NOT post any client info in social media or public domain without prior approval and client permission in writing.

ALL group members must participate equally in delivering the presentation. ATTENDANCE FOR ALL OTHER GROUP PRESENTATIONS IN YOUR CORE IS MANDATORY. You are expected to maintain professional business decorum during presentations.

#### D. Interim Presentation (15%):

**Organizational Background** – discuss evolution / milestones, organizational structure, details of education / training and business / other experience and expertise of owners, managers, etc identify employee numbers / roles; recognition received etc.

#### E. Final Presentation (20%):

- 1. Overview of business, Details of current strategy 4P's,
- 2. Review of Business Problem and Business Objectives
- 3. **Target Market Analysis**. Provide insights on segments and needs served. As applicable discuss decision making unit and influences; Key decision criteria;
- 4. External Environment: Measuring Current and Estimating Future Demand Industry Performance Trends; Analysis of Category Buyer / Supplier Power; Threat of Substitutes; Explain relevant Social / Cultural, Demographic, Economic, Political / Legal and Technological Environment / Trends / Forecasts
- Nature of Competitive Environment Competitive Advantages and Disadvantages; Primary / Secondary Competitors; Aggressiveness of Competition
- Marketing Strategy Alternatives and Recommendation Develop TWO Strategies with detailed insights on changes to 4P's; budgets; pros and cons; decision criteria; use of theory; how it solves problem and meets goals etc

#### Marketing Report (25%)

Students must submit a marketing plan that is well organised, well written, accurate, and complete in its analysis. Clarity and conciseness are important. Please submit TWO spiral bound copies. We will keep one and mail the second copy to the business.

The marketing plan written in this course is expected to aid management in making a decision leading to the implementation of a particular strategy. The business owner / manager are familiar with the facts of the case and probably have an idea of the various alternatives that should be considered. Your marketing plan should not merely repeat existing knowledge. It should develop the information on opportunities and constraints in a manner that illustrates the depth of your understanding of the issues and reassure your reader that reasonable alternative strategies have been considered. It should convince the reader that the chosen solution is the appropriate one.

### Course Schedule =

Week	Topic	Assignment
Week 1		Discuss Elements of Course – Mark Distribution; Group Format
Week 2	Discuss Format for Marketing Plan Reports	Discuss Case Method. Understand Structure of -  In class case discussions Hand-in case assignment  Case questions. Identify Relevant Readings review past Marketing reports
Week 3	Group Process Exercise – Roles & Rules	Case: Thompson Brothers AUDIT / SWOT / Strategy
	Submit group form	
Week 4	Group work	Case: Huron Canvas Clothier AUDIT / SWOT / Strategy
Week 5	Group work	Case: ED Smith Audit / SWOT / Strategy
	Case Assignment is due Feb 12 <sup>th</sup> upload on avenue as a pdf	Hand-In Case: East Hamilton Miniature Golf
Week 6	Group work	Case: Limelight Cinema Audit / SWOT / Strategy
Week 7	Group work	Case: Goof Proof swot / Strategy
Week 8	Interim Presentations	Interim Presentations
Week 9	Library Session	Case: Tremco SWOT / STRATEGY
Week 10	Group work	Case: Julius Schmid SWOT / STRATEGY
Week 11	work in progress presentations	work in progress presentations
Week 12	Final Presentations	Final Presentations





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

## DeGroote School of Business McMaster University

	17.	All sections of this form must be completed
--	-----	---------------------------------------------

- 18. This form must be completed for all course changes.
- 19. If the committee has any questions regarding this proposal, who should be contacted?

 $Instructor\ or\ Chair\ Name:\ \textbf{Trevor\ Chamberlain\ -\ Chair}$ 

Extension: 23980

20. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Sub	mitted by which area group (select one):
	Strategic Management
	Marketing
	Health Policy and Management
	Accounting and Financial Management Services
$\boxtimes$	Finance and Business Economics
	Human Resources and Management
	Information Systems
	Operations Management
	Joint Areas (please specify):

#### **Proposed Course Details:**

Course Title: Corporate Finance Course Code: IBH 3AC3

Instructor(s): TBD Credit Value: 3

Prerequisites: IBH 2BB3 and Registration in Level III or above in the

Integrated Business and Humanities Program

Rationale: Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.	
This is a new course that is to be included in the Integrated Business and Humanities (IBH program.	)
<b>Course Description</b> : Provide a brief description to be included in the Undergraduate Calendar (max. (lines).	6
This course examines various aspects of the financial management of the firm including the sources and methods of financing, capital structure, dividend policy, leasing, mergers and acquisitions, working capital management, effects of taxation on financial decisions and international aspects of finance.	5
Statement of purpose (How does the course fit into the Faculty's programme?):	
This is a required course in the Integrated Business and Humanities program	
Method of presentation of course material:	
Lectures	
Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Cases, exams, and group projects	
<b>To prevent overlap</b> , is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)?  onto offered elsewhere	
If the proposed course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with the department/faculty.	
If this course is intended primarily for students <b>outside the DeGroote School of Business</b> , have you the support of the department concerned? $\boxtimes$ not intended for students outside the faculty	

Configuration for Mosaic Course Catalog	
Component(s) required: Check all that apply to a maximum of 3. All components used in the care enrol in the course. For example, if a course is approved with lecture are students will not be able to enrol into the course. The components configured in Mosaic should also match the calendary tutorials); one term" is used, then lectures and tutorials should be used.	nd tutorial components and the tutorial is not scheduled, description (i.e. if the phrase "Three hours (lectures,
⊠ Lecture    □ Tutorial    □ Lab    □ Seminar    □ Field Study    □ In□ Project    □ Thesis    □ Work Experience	ndependent Study 🔲 Placement
<b>Default section size:</b> (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)	60
Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field component. Additionally, students are not eligible to use the PIC option	** * * * * * * * * * * * * * * * * * * *
Is a Registrar-scheduled exam required?	⊠ Yes □ No
What is the grading basis for the course?	<ul><li> ⊠ Standard (A+ to F) □ Pass/Fail □ Other (specify):</li></ul>
Is this course repeatable for credit?	oxtimes No $oxtimes$ Yes, to a maximum of units.
Is permission required to enrol in the course?	<ul><li>⋈ No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>
Is this a multi-term (A/B) course?	☐ Yes ⊠ No

#### **IBH 3AC3- Corporate Finance**

#### **Course Outline**

#### **COURSE OBJECTIVE**

The goal of this course is to give students a passion for finance and develop an understanding of the key concepts used in the business world.

This course continues the introduction to modern business finance begun in IBH 2BB3. The course balances theory, evidence and applications in an effort to prepare students for elective courses in finance and taxation and to provide some of the knowledge required to work effectively in the contemporary business environment.

#### **COURSE DESCRIPTION**

The goal of this course is to give students a passion for finance and develop an understanding of the key concepts used in the business world. This course continues the introduction to the theory and practice

of modern business finance begun in IBH 2BB3. The course focuses on the various problems and decisions confronting the CFO of a corporation. Major topics include raising long-term capital, cost of capital and capital structure, dividend policy, international finance, leasing, mergers and acquisitions, and working capital management.

#### **LEARNING STRATEGY & OUTCOMES**

This course is intended to provide students with a basic literacy in the problems and methods of modern business finance. During the lectures, the course will also discuss real world applications of the financial concepts that we cover.

#### **REQUIRED COURSE MATERIALS AND READINGS**

S.A. Ross, R.W. Westerfield, B.D. Jordan and G.S. Roberts, Fundamentals of Corporate Finance, 9th Canadian Edition. Toronto: McGraw-Hill Ryerson: henceforth RWJR.

#### **EVALUATION**

#### Components and Weights

The following weighting scheme will be used:

Total	100%
Final examination (Topics I to X)	50%
Mid-term II (Topics IV, V, and VI)	25%
Mid-term I (Topics I, II, and III)	25%

#### **Course Schedule**

Date	Topic	Textbook Readings
Week 1	Cost of Capital	Chapter 14
Week 2	Capital Structure	Chapter 16
Week 3	Raising Long-term Capital	Chapter 15
Week 4	Dividend Policy	Chapter 17
Week 5	Leasing Policy	Chapter 22
Week 6	Mergers and Acquisitions	Chapter 23
Week 7	International Finance	Chapter 21
Week 8	Options and Derivatives	Chapter 25
Week 9	Planning	Chapter 18.1 to 18.3
Week 10	Working Capital Management	Chapter 19.1 to 19.2
Week 11	Behavioral Finance	Chapter 26





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

- 21. All sections of this form <u>must</u> be completed.
- 22. This form must be completed <u>for all</u> course changes.
- 23. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Magda Stroinska (Chair)

Extension: 27067

24. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Suc	omitted by which area group (select one):
	Strategic Management
	Marketing
	Health Policy and Management
	Accounting and Financial Management Services
	Finance and Business Economics
	Human Resources and Management
	Information Systems
	Operations Management
$\boxtimes$	Joint Areas (please specify): <b>Department of Linguistics at the Faculty of Humanities</b>

#### **Proposed Course Details:**

Course Title: Cross-Cultural Communication Course Code: IBH 3AD3

Instructor(s): TBD Credit Value: 3

Prerequisites: Registration in Level III or above in the Integrated

**Business and Humanities Program** 

<b>Rationale</b> : Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.
This is a new course that is to be included in the Integrated Business and Humanities (IBH) program.
<b>Course Description</b> : Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines).
Students will explore the links between language and culture and learn skills necessary to be intermediaries between cultures. Topics include: communication between genders, the cognitive role of metaphor, language and perception, emotions across cultures, culture and advertising, body language and cultural stereotyping.
Statement of purpose (How does the course fit into the Faculty's programme?):
This is a required course in the Integrated Business and Humanities program
Method of presentation of course material:
Lectures
Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Class participation, two research projects, self-assessments, research project proposal, and final research project
To prevent overlap, is a similar course being offered elsewhere on campus? If so, please attach any
relevant correspondence with the other area(s) or department(s)? $igstyle$ not offered elsewhere
relevant correspondence with the other area(s) or department(s)?  not offered elsewhere  If the proposed course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with the department/faculty.  not cross-listed elsewhere
If the proposed course is to be <b>cross-listed</b> in an <u>ot</u> her department/faculty, please attach relevant
If the proposed course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with the department/faculty.  not cross-listed elsewhere

A draft course outline is attached to this form. Yes it  Configuration for Mosaic Course Catalog  Component(s) required:  Check all that apply to a maximum of 3. All components used in the course in the course in the course in the course is approved with lecture a	italog <b>must be scheduled</b> or students won't be able to
students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar tutorials); one term" is used, then lectures and tutorials should be use.	
<ul> <li>☑ Lecture</li> <li>☐ Tutorial</li> <li>☐ Lab</li> <li>☐ Seminar</li> <li>☐ Field Study</li> <li>☐ Project</li> <li>☐ Thesis</li> <li>☐ Work Experience</li> </ul>	
Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)	60
Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field component. Additionally, students are not eligible to use the PIC option	
Is a Registrar-scheduled exam required?	⊠ Yes □ No
What is the grading basis for the course?	<ul><li>             ⊠ Standard (A+ to F) □ Pass/Fail □ Other (specify):         </li></ul>
Is this course repeatable for credit?	⊠No □Yes, to a maximum of units.
Is permission required to enrol in the course?	<ul><li>No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>
Is this a multi-term (A/B) course?	☐ Yes ⊠ No
IBH 3AD3: Cross-Cultural Communication Course Outline	
Course Objectives:	
In this course students will explore the links between necessary to be intermediaries between cultures. On caware of the role of their own cultural filters, i.e. how perceive the world and they should become better equilearn to analyse how linguistic behaviour reflects com	ompletion of the course students should be their own culture affects the way they supped to interpret other cultures. They will

## **Textbooks, Materials & Fees:**

Ingrid Piller. 2017. Intercultural Communication: A Critical Introduction. Edinburgh University Press.

#### **Method of Assessment:**

Students will carry out a number of weekly assignments, present their findings in class, write two minor essays, and complete two rounds of self-evaluation. The final project will be a small-scale investigation of specific issues in cross-cultural communication. Proposals will be due in the second week of March. Final projects will be due on March 29. Penalty for late assignments will be 10% for the first 4 days past the deadlines. No assignments will be accepted past the deadline unless special arrangements were made before the due date.

Students will work with human subjects for some of the class projects (through interviews, surveys or focus groups) and will be instructed about principles of ethical research. They will also need to familiarize themselves with the guidelines prepared by the Ethics Board of the Office of Research Services which are available on-line at: <a href="http://reo.mcmaster.ca/policies">http://reo.mcmaster.ca/policies</a> (see "recommended tutorials").

40% 2 research projects

10% 2 self-assessments

5% Final project proposal

30% Final project

15% Attendance & active participation

## **Topics and Readings:**

Topics include communication within family, communication between genders, cognitive role of metaphors, language and perception (using colour terms as an example), emotions across cultures, the role of culture in advertising, significance of personal space and body language, the importance of language in identity construction, and cultural stereotyping.





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

- 25. All sections of this form <u>must</u> be completed.
- 26. This form must be completed <u>for all</u> course changes.
- 27. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Aaron Schat

Extension: 23946

28. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Sui	omitted by which area group (select one):
	Strategic Management
	Marketing
	Health Policy and Management
	Accounting and Financial Management Services
	Finance and Business Economics
$\boxtimes$	Human Resources and Management
	Information Systems
	Operations Management
	Joint Areas (please specify):

#### **Proposed Course Details:**

Course Title: Understanding entrepreneurship and social Course Code: IBH 3BA3

entrepreneurship from a historical and theoretical lens Credit Value: 3

Instructor(s): Benson Honig

Prerequisites: Registration in Level III or above in the Integrated

**Business and Humanities Program** 

<b>Rationale</b> : Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.
This is a new course that is to be included in the Integrated Business and Humanities (IBH) program.
<b>Course Description</b> : Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines).
Students in this course will learn what constitutes entrepreneurship, how it has been practiced throughout history, as well as the necessary social, political, ethical and economic foundations that support a contemporary entrepreneurial economy. They will study empirical research examining entrepreneurial trends in Canada and world-wide, including social entrepreneurship.
Statement of purpose (How does the course fit into the Faculty's programme?):
This is a required course in the Integrated Business and Humanities program
Method of presentation of course material:
Lecture, Site Visits, Experiential Learning
Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Class participation, Reflexive Summaries of program, group experiential engagement (project design), and active learning through practice and critical inquiry
<b>To prevent overlap</b> , is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)? $\boxtimes$ not offered elsewhere
If the proposed course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with the department/faculty.
If this course is intended primarily for students <b>outside the DeGroote School of Business</b> , have you the support of the department concerned? $\square$ not intended for students outside the faculty
71

A **draft course outline** is attached to this form. X Yes it is included. Configuration for Mosaic Course Catalog Component(s) required: Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not scheduled, students will not be able to enrol into the course. The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.) □ Lecture □ Tutorial □ Lab ⋈ Seminar ⋈ Field Study □ Independent Study □ Placement ☐ Project ☐ Thesis ☐ Work Experience Default section size: 60 (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.) Note regarding Personal Interest Courses (PIC): All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses. Is a Registrar-scheduled exam required? ☐ Yes ⊠ No ☐ Standard (A+ to F) ☒ Pass/Fail What is the grading basis for the course? ☐ Other (specify): Is this course repeatable for credit?  $\boxtimes$  No  $\square$  Yes, to a maximum of units. Is permission required to enrol in the course? ⊠ No ☐ Yes; department permission ☐ Yes; instructor permission Is this a multi-term (A/B) course? ☐ Yes ⊠ No

# IBH 3BA3 Understanding Entrepreneurship and Social Entrepreneurship Course Outline

# OB/HR/Management DeGroote School of Business McMaster University

#### **Course Objectives**

This course is designed to unify the functional knowledge you gained during the program. This course will also give you a working knowledge of how organizations of all types create value. This course will enhance your capacity to do the job of a general manager responsible for setting strategy and managing performance.

- Understand the terminology and models of entrepreneurship theory and practice
- Understand the terminology and models of social entrepreneurship theory and practice

and how these models differs across international and local, non-profit and for-profit contexts.

- Understand contemporary theories of both entrepreneurship and social entrepreneurship
- Analyze a development project's internal and external environment in support of social entrepreneurship development
- Understand how social organizations create value and how organizational requirements differ across non-profit and for-profit contexts
- Formulate a social entrepreneurship project
- Understand how social entrepreneurship can lead to either success or failure
- Identify measurement criterial for social entrepreneurship outcomes.

#### Course Description

In this course students will gain an understanding of both entrepreneurship and social entrepreneurship, both from a theoretical perspective, and from an experiential perspective. Students will learn of the context in which the current business environment and economic system have historically evolved, and how NGOs, bilateral, and multilateral organizations attempt to intercede and promote particular agendas. The course will focus on critical and theoretical analysis including their experience during a 10-day trip to a developing country. Students will learn both the theory and the historical background sufficient to begin engaging with international development discourse, practice, and activity. One of the goals of this course is to prepare students for a fourth year capstone project that will engage them in economic development activities either in Canada or abroad.

#### **Required Readings**

Alvarez, S and Barney, J.(2007). "Discovery and creation: Alternative theories of entrepreneurial action". *Strategic Entrepreneurship Journal*, vol1 (1):11-26.

Anderson. R; Camp, R. Dana, L.P. Honig, B. Nkongolo-Bakenda, J.M.; Peredo, A.M (2005) Indigenous land rights in Canada: the foundation for development? *International Journal of Entrepreneurship and Small Business*.Vol 2(2):104-133.

Bornstein, David. How to change the world: Social entrepreneurs and the power of new ideas. Oxford University Press, 2007.

Dey, P., & Steyaert, C. (2018). Myth in social entrepreneurship research: an inquiry into rationalist, ideological and dialectic practices of demystification. In *Social Entrepreneurship*. Edward Elgar Publishing.

Dana, L.P.; Honig, B. (2008) Communities of dis-entrepreneurship: A comparative crossnational examination of two cases of entrepreneurial demise. *Journal of Enterprising Communities: People and Places in the Global Economy* Vol 2 (1):5-20 Dey, P., & Teasdale, S. (2013). Social enterprise and dis/identification: The politics of identity work in the English third sector. *Administrative Theory & Praxis*, 35(2), 248-270.

Hancock, Graham. Lords of poverty: The power, prestige, and corruption of the international aid business. Atlantic Monthly Press, 1992.

Honig, B;Acquaah, M. (2016) Sustainable management and managing sustainability: The continued challenges of the African continent, *Canadian Journal of Administrative Sciences* Vol 25: 217-226.

Honig, B. (2000). Small business promotion and microlending: A comparative assessment of Jamaican and Israeli NGO's. *Journal of Microfinance* Vol 2(1): 92-111.

Honig, B. (1998). Who gets the goodies? An examination of microenterprise credit in Jamaica. <u>Entrepreneurship and Regional Development</u>, Vol 10: 313-334

Honig, B. (1998). What determines success? Examining the human, financial, and social capital of Jamaican microentrepreneurs. *Journal of Business Venturing*, Vol 13(5): 371-394

Honig, B;Katongole, C;Perry, M. (2014) Entrepreneurial Promotion and Sustainability: The Community as a Unit of Analysis in David Zoogah (eds) <u>Advancing Research Methodology in the African Context: Techniques, Methods, and Designs</u> (Volume 10 of Research Methodology in Strategy and Management Series). Emerald Publishers 167-188

Honig, B. (2018). Entrepreneurship as a Political Tool: The Implications of Compensatory Entrepreneurship In Mathers, C and Ligouri, E. (eds) *Annals of Entrepreneurship Education and Pedagogy, 3e*. Edward Elgar, Northampton, Mass. 203-217.

Klitgaard, Robert E. Tropical gangsters. IB Tauris, 1991.

Lampel, J;Honig, B;Drori, I. (2014). Organizational Ingenuity: Concept, Processes and Strategies. <u>Organization Studies.</u> 35: 1-18

Lucero, José Antonio. Representing" Real Indians": The Challenges Of Indigenous Authenticity And Strategic Constructivism In Ecuador And Bolivia. *Latin American Research Review*, 2006, p. 31-56.

Marcado, G; Hjortsø, N., Honig, B. (forthcoming). Decoupling from international food safety standards: How small-scale indigenous farmers cope with conflicting institutions to ensure market participation. <u>Agriculture and Human Values</u>

Peredo, A.M.; Anders, R., Galbraith, C; Honig, B; Dana, L.P. (2004). Towards a theory of indigenous entrepreneurship. *International Journal of Entrepreneurship and Small Business* Vol. (1):11-20.

Radjou, N., Prabhu, J., & Ahuja, S. (2012). *Jugaad innovation: Think frugal, be flexible, generate breakthrough growth*. John Wiley & Sons.

Sarasvathy, S. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, vol 26(2):243-263.

Schumpter, J. (1947). The creative response in economic history. Journal of Economic History, 7, 149-159.

Sutter, C., Bruton, G. D., & Chen, J. (2019). Entrepreneurship as a solution to extreme poverty: A review and future research directions. *Journal of Business Venturing*, *34*(1), 197-214.

#### **Custom Courseware - Cases and Readings**

Juma, N; Kwesiga, E. **Honig, B**. (2016) Building a Symbiotic Sustainable Business Model: A Community Based Enterprise. *Journal of the International Academy for Case Studies*. 22(3),110.

#### SUPPLEMENTARY READINGS:

- Banerjee, Abhijit, and Esther Duflo. Poor economics: A radical rethinking of the way to fight global poverty. New York: PublicAffairs, 2012
- Bornstein, David. How to change the world: Social entrepreneurs and the power of new ideas. Oxford University Press, 2007.
- Diamond, Jared. Guns, germs, and steel: The fates of human societies. New York: W.W. Norton & Company, 1999.
- Elkington, John, and Pamela Hartigan. The power of unreasonable people: How social entrepreneurs create markets that change the world. Harvard Business Press, 2008.
- Kotler, Philip T., and Nancy R. Lee. Up and out of poverty: The social marketing solution. Upper Saddle River, NJ: Pearson Prentice Hall, 2009.
- Kristof, Nicholas D., and Sheryl WuDunn. Half the sky: Turning oppression into opportunity for women worldwide. New York: Vintage Books, 2010.
- Moyo, Dambisa. Dead aid: Why aid is not working and how there is a better way for Africa. New York: Farrar, Straus, and Giroux, 2009.
- Radjou, N., Prabhu, J., & Ahuja, S. (2012). *Jugaad innovation: Think frugal, be flexible, generate breakthrough growth*. John Wiley & Sons.

- Sachs, Jeffrey D. The end of poverty: economic possibilities for our time. New York: Penguin, 2006. Sinek, Simon. Start with why: How great leaders inspire everyone to take action. New York: Penguin, 2011.
- Stiglitz, Joseph E. Globalization and its Discontents. New York:
   W.W. Norton & Company, 2002. Yunus, Muhammad. Creating a world without poverty: Social business and the future of capitalism. New York: PublicAffairs, 2007.

#### Evaluation

The final grade for this course will be calculated as follows:

Presentation of weekly reading (group)	
Case Presentations (group)	20%
Group social entrepreneurship proposal (group)	25%
Classroom Discussions (individual)	20%
Reflections (individual)	20%
Total	100%

**Presentations (weekly) (15%):**You will be required to evaluate and present to the class your summary of one of the weekly assigned readings. A short two page written summary will be submitted, along with the group class presentation

Classroom discussion (20%): Classroom discussion represents a unique opportunity to develop and enhance your confidence and skill in articulating a personal position, reacting to new ideas, and receiving and providing critical feedback from a group of assertive and demanding colleagues. Much of your learning will come from these classroom experiences. Classroom engagement comprises two components: classroom discussion of cases and daily discussions and evaluations of experiential learning during in site visit

You are expected to come to each class, having read cases and assigned readings and with a readiness and willingness to contribute to the class discussion. Your contribution to the learning

of others, through the experience and insights you share is a key part of this learning process. Contribution will be graded based on quality, quantity and consistency. Some of the things that will determine a contribution include:

- " Are you listening, not just for a few minutes, but the duration of the class?
- " Are your contributions relevant to the discussion? Do your comments relate to the comments of others and to the themes that the class is exploring together? Do you build on the class discussion?
- " Do your comments add to our understanding of the situation? Are you incisive? Do you cut to the core of the problem?
- " Are you willing to challenge the ideas that are being expressed in the classroom?
- " Are you willing to test new ideas or are all comments "safe"?
- Do you bring in your own experience, personal or professional, in order to add value to the class discussion

Participation will be graded using a peer grading system that each student will participate in at most once throughout the course.

#### Case Presentations [20%]

This will be a weekly component of the course. Each group will be responsible for leading at least one assigned case. Groups will be evaluated on their clarity, consistency, and ability to relate the material to experiences they have had either in the trip abroad or in their observations of the Canadian environment.

#### Reflections [20%]

A key aim of this course is to provide the opportunity for students to think critically about issues presented and their experiences, their career goals, and their possible goals for doing community engagement work. Each student will be responsible for diarizing their weekly activities, providing a thorough, critical, and thoughtful summation of their experiences as a student in this course. Students are encouraged to actively reflect on what they have learned during the course and news, current events, or other relevant material related to this course. At the conclusion of the course, students will submit structured reflections.

Submissions will only be accepted through Avenue. Reflections must be **no more than 2 pages**, **12 point Times New Roman font**, **1.5 line spacing**, **and 1 inch margins**. **Reflections should be submitted in Word (or equivalent) format**. Late submissions will be penalized at 10% a day. Please acknowledge intellectual debts and facts and figures in your reflection using a superscript number and endnotes to reports. Draw on the library citation guide (<a href="https://library.mcmaster.ca/sites/default/files/businesscitation.pdf">https://library.mcmaster.ca/sites/default/files/businesscitation.pdf</a>) paying particular attention to page 6 and page 15 for endnote and citation support.

Group Social Entrepreneurship Project (25%) Each group will complete a final project of a proposed social entrepreneurship project, conceived to be located either in Canada or in an emergent/developing economy. Project proposals will be presented in the final class. Written outlines will be up to 10 pages, 12 point Times New Roman font, 1.5 line spacing, and 1 inch margins. Reflections should be submitted in Word (or equivalent) format. Late submissions will be penalized at 10% a day.

Please acknowledge intellectual debts and facts and figures in your project using a superscript number and endnotes to reports. Draw on the library citation guide (<a href="https://library.mcmaster.ca/sites/default/files/businesscitation.pdf">https://library.mcmaster.ca/sites/default/files/businesscitation.pdf</a>) paying particular attention to page 6 and page 15 for endnote and citation support.

#### **Grade Conversion**

At the end of the course, overall percentage grades will be converted to letter grades in accordance with the following conversion scheme.

AT THE END OF THE COURSE YOUR OVERALL PERCENTAGE GRADE WILL BE CONVERTED TO YOUR LETTER GRADE IN ACCORDANCE WITH THE FOLLOWING CONVERSION SCHEME.

AT THE END OF THE COURSE YOUR OVERALL PERCENTAGE GRADE WILL BE CONVERTED TO YOUR LETTER GRADE IN ACCORDANCE WITH THE FOLLOWING CONVERSION SCHEME.

LETTER GRADE	PERCENT	LETTER C	GRADE	PERCENT
A+	90 - 100	C+	67 - 69	
Α	85 - 89	С	63 - 66	
A-	80 - 84	C-	60 - 62	
B+	77 - 79	D+	57 - 59	
В	73 - 76	D	53 - 56	
B-	70 - 72	D-	50 - 52	
		F	00 - 49	

# Course Schedule

Week	Overview and Learning Goals	Readings and Cases
1	Introduction to Entrepreneurship  What is entrepreneurship?  How can it be studied?  Why is there so much attention to entrepreneurship in the media?  What are entrepreneurial theories and how can they be used?	Sarasvathy, S. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. Academy of Management Review, vol 26(2):243-263.  Schumpter, J. (1947). The creative response in economic history.

		Journal of Economic History, 7 149-159.
2	Introduction to Social Entrepreneurship  How is social entrepreneurship defined?  How is social entrepreneurship measured?  What does research say about social entrepreneurship?	Bornstein, David. How to change the world: Social entrepreneurs and the power of new ideas. Oxford University Press, 2007.  Sutter, C., Bruton, G. D., & Chen, J. (2019). Entrepreneurship as a solution to extreme poverty: A review and future research directions. <i>Journal of Business Venturing</i> , 34(1), 197-214.
3	Analysis of External Environment  How does entrepreneurship compare across different communities?  What are the path dependent aspects of entrepreneurship?  What are the political dimensions of entrepreneurship?	Dana, L.P.; Honig, B. (2008) Communities of dis-entrepreneurship A comparative cross-national examination of two cases of entrepreneurial demise. Journal of Enterprising Communities: People and Places in the Global Economy Vol 2 (1):5-20  Honig, B. (2018). Entrepreneurship as a Political Tool: The Implications of Compensatory Entrepreneurship In Mathers, C and Ligouri, E. (eds) Annals of Entrepreneurship Education and Pedagogy, 3e. Edward Elgar, Northampton, Mass. 203-217.
4	Ingenuity, discovery, and appropriate technology  • How can ingenuity be employed in a social entrepreneurship setting?	Lampel, J; <b>Honig, B</b> ;Drori, I. (2014 Organizational Ingenuity: Concept, Processes and Strategies. <i>Organization Studies</i> . 35: 1-18

	<ul> <li>What is the difference between discovery and creation?</li> <li>What are the constraints of not adapting technology to the local environment?</li> </ul>	Alvarez, S and Barney, J.(2007) "Discovery and creation: Alternative theories of entrepreneurial action". Strategic Entrepreneurship Journal, vol1 (1):11-26.
5	The historical context of international business relations  • Path dependent processes  • How to focus on grass roots development	Marcado, G; Hjortsø, N., Honig (forthcoming). Decoupling from international food safety standards: How small-scale indigenous farmers cope with conflicting institutions to ensur market participation. Agricultuland Human Values
		Honig, B;Katongole, C;Perry, M (2014) Entrepreneurial Promot and Sustainability: The Community as a Unit of Analys in David Zoogah (eds) Advancir Research Methodology in the African Context: Techniques, Methods, and Designs (Volume of Research Methodology in Strategy and Management Series).Emerald Publishers 167
6	Indigenous rights, and social entrepreneurship  • Historical complications for indigenous populations • Who needs help and who gets help? Evaluating inequality	Anderson. R; Camp, R. Dana, L. Honig, B. Nkongolo-Bakenda, J.M.; Peredo, A.M (2005) Indigenous land rights in Canac the foundation for development International Journal of Entrepreneurship and Small Business. Vol 2(2):104-133.

	Ĭ	I
		Lucero, José Antonio. Representing" Real Indians": The Challenges Of Indigenous Authenticity And Strategic Constructivism In Ecuador And Bolivia. Latin American Research Review, 2006, p. 31-56.
7	Research on social entrepreneurship  Examining different models  Measuring 'success'  Ensuring equity	Honig, B. (1998). What determing success? Examining the hum financial, and social capital Jamaican microentrepreners Journal of Business Venturing, 13(5): 371-394
		Honig, B. (2000). Small business promotion and microlending: A comparative assessment of Jamaican and Israeli NGO's.  Journal of Microfinance Vol 2(192-111.
		Honig, B. (1998). Who gets goodies? An examination microenterprise credit in Jama Entrepreneurship and Region Development, Vol 10: 313-334
		•
8	<ul> <li>Innovation</li> <li>Innovation in business models</li> <li>Is sustainability possible?</li> <li>Social Innovation</li> <li>Impact of Innovation on Culture</li> </ul>	Radjou, N., Prabhu, J., & Ahuja, (2012). Jugaad innovation: Thir frugal, be flexible, generate breakthrough growth. John Wil & Sons. (selected chapters)
9	The Development Industry,  Realized and emergent strategy  Control and corporate governance  Organizational design and structure	Hancock, Graham. Lords of poverty: The power, prestige, a corruption of the international

	<ul> <li>Strategy and structure</li> <li>Organizational culture</li> </ul>	business. Atlantic Monthly Press, 1992. (select chapters) Klitgaard, Robert E. <i>Tropical</i> gangsters. IB Tauris, 1991. (select chapters)
10	Critical approaches, Realized and emergent strategy Control and corporate governance Organizational design and structure Strategy and structure Organizational culture	Dey, P., & Teasdale, S. (2013). Social enterprise and dis/identification: The politics of identity work in the English third sector. Administrative Theory & Praxis, 35(2), 248-270.  Honig, B. (2018). Entrepreneurship as a Political Tool: The Implications of Compensatory Entrepreneurship In Mathers, C and Ligouri, E. (eds) Annals of Entrepreneurship Education and Pedagogy, 3e. Edward Elgar, Northampton, Mass. 203-217.  Dey, P., & Steyaert, C. (2018). Myth in social entrepreneurship research: an inquiry into rationalist, ideological and dialectic practices of demystification. In Social Entrepreneurship. Edward Elgar Publishing.
11	Final Group Presentations	





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

- 29. All sections of this form <u>must</u> be completed.
- 30. This form must be completed for all course changes.
- 31. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Nick Bontis

Extension: 23918

32. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Sub	Submitted by which area group (select one):					
$\boxtimes$	Strategic Management					
	Marketing					
	Health Policy and Management					
	Accounting and Financial Management Services					
	Finance and Business Economics					
	Human Resources and Management					
	Information Systems					
	Operations Management					
	Joint Areas (please specify):					

#### **Proposed Course Details:**

Course Title: Organizational Strategy Course Code: IBH 3BB3

Instructor(s): Brent McKnight Credit Value: 3

Prerequisites: Registration in Level III or above in the Integrated

**Business and Humanities Program** 

Rationale: Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale. This is a new course that is to be included in the Integrated Business and Humanities (IBH) program. Course Description: Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines). In this course, students will explore frameworks that help them conduct strategic analysis, and formulate and implement new strategies to improve organizational performance. The course is structured to provide strategic management tools and frameworks to assist organizations of all types, from public and private for-profit firms through social businesses and social enterprises to traditional non-profit and charitable organizations. Through case-based discussion, guest speakers, and experiential exercises, professors will push students to answer key questions such as: How do organizations across the forprofit and non-profit continuum define their purpose, and conceptualize, create, and capture value? How do these organizations analyze strategic opportunities and structure effective investments? What is the nature of competitive advantage in for-profit and nonprofit contexts and how is it gained and sustained? Statement of purpose (How does the course fit into the Faculty's programme?): This is a required course in the Integrated Business and Humanities program Method of presentation of course material: Lectures Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Class participation, multiple-choice exam, live case exam, group experiential engagement, and reflections To prevent overlap, is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)? X not offered elsewhere If the proposed course is to be cross-listed in another department/faculty, please attach relevant correspondence with the department/faculty. not cross-listed elsewhere

If this course is intended primarily for students <b>outside the DeGroote School of Business</b> , have you the support of the department concerned?  not intended for students outside the faculty				
A <b>draft course outline</b> is attached to this form. 🔀 Yes it i	s included.			
Configuration for Mosaic Course Catalog				
Component(s) required: Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not scheduled, students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture				
Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)	60			
Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.				
Is a Registrar-scheduled exam required?	⊠ Yes □ No			
What is the grading basis for the course?	<ul><li> ⊠ Standard (A+ to F) □ Pass/Fail □ Other (specify):</li></ul>			
Is this course repeatable for credit?	⊠No □Yes, to a maximum of units.			
Is permission required to enrol in the course?	<ul><li>⋈ No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>			
Is this a multi-term (A/B) course?	☐ Yes			

IBH 3BB3
Organizational Strategy
Course Outline

Strategic Management Area
DeGroote School of Business
McMaster University

#### **Course Objectives**

This course is designed to unify the functional knowledge you gained during the program. This course will also give you a working knowledge of how organizations of all types create value. This course will enhance

your capacity to do the job of a general manager responsible for setting strategy and managing performance.

- Assess an organization's performance
- Understand how organizations gain and sustain competitive advantage and how such competition differs across non-profit and for-profit contexts.
- Analyze an organization's internal and external environment in support of strategy formulation
- Understand how organizations create value and how that value creation differs across nonprofit and for-profit contexts
- Formulate new organizational strategy
- Understand how organizations implement strategies to set themselves up for success

#### Course Description

In this course, students will explore frameworks that help them conduct strategic analysis, and formulate and implement new strategies to improve organizational performance. The course is structured to provide strategic management tools and frameworks to assist organizations of all types, from public and private for-profit firms through social businesses and social enterprises to traditional non-profit and charitable organizations. Through case-based discussion, guest speakers, and experiential exercises, professors will push students to answer key questions such as: How do organizations across the for-profit and non-profit continuum define their purpose, and conceptualize, create, and capture value? How do these organizations analyze strategic opportunities and structure effective investments? What is the nature of competitive advantage in for-profit and non-profit contexts and how is it gained and sustained?

The course serves as an opportunity to develop skills for strategic thinking and analysis, leadership, communication, teamwork, and cross-functional integration. What you will learn in this course has utility beyond the senior leadership of organizations. Increasingly, organizations need employees that can think strategically and understand how their actions contribute to the overall success of the organization as well as the impact that organizations have in the broader society.

#### Required Text Book

Course content, readings and case materials

• <a href="http://avenue.mcmaster.ca">http://avenue.mcmaster.ca</a>

Custom Courseware - Cases and Readings

Purchase a copy at the bookstore

**Textbook and Reading** 

~80

- <u>Mastering Strategic Management</u> (open source) by Ketchen and Shook available at https://opentextbc.ca/strategicmanagement/
- A collection of online readings as described and linked on Avenue such as from Engines of Impact and Strategic Management in Nonprofit Organizations

#### **Evaluation**

The final grade for this course will be calculated as follows:

Classroom Engagement	20%
Multiple Choice Test	20%
Live Case Exam	20%
Experiential Engagement [group]	25%
Reflections	15%
Total	100%

#### Classroom Engagement [20%]

Classroom engagement comprises two components: classroom discussion of cases and weekly class tickets related to course content.

**Classroom discussion (10%):** Classroom discussion represents a unique opportunity to develop and enhance your confidence and skill in articulating a personal position, reacting to new ideas, and receiving and providing critical feedback from a group of assertive and demanding colleagues. Much of your learning will come from these classroom experiences.

You are expected to come to each class, having read cases and assigned readings and with a readiness and willingness to contribute to the class discussion. Your contribution to the learning of others, through the experience and insights you share is a key part of this learning process. Contribution will be graded based on quality, quantity and consistency. Some of the things that will determine a contribution include:

- " Are you listening, not just for a few minutes, but the duration of the class?
- Are your contributions relevant to the discussion? Do your comments relate to the comments of others and to the themes that the class is exploring together? Do you build on the class discussion?
- Do your comments add to our understanding of the situation? Are you incisive? Do you cut to the core of the problem?
- " Are you willing to challenge the ideas that are being expressed in the classroom?
- " Are you willing to test new ideas or are all comments "safe"?
- Do you bring in your own experience, personal or professional, in order to add value to the class discussion

Participation will be graded using a peer grading system that each student will participate in at most once throughout the course.

Class tickets (10%): Each class in this course focuses on a particular topic regarding the role of corporations in society. To guide you in this learning, there is a "ticket" associated with each class to help you reflect on and consider key concepts. For some classes this will be integrated with the reading required prior to the class while at other times you will be asked to answer questions pertaining to the content covered in class.

The ticket assignments can be found on Avenue under the Class Content associated with each class.

To get full grades on these tickets, students will need to complete 7 of 10 tickets satisfactorily. The professor and TAs reserve the right to penalize for lackluster responses.

Tickets are due on dropbox in Avenue. Tickets will be either due prior to the start of class, or at 11:59pm the Sunday following class. Pay attention to which tickets are due prior to class and which ones afterward. Late tickets will impair your ability to receive full marks.

#### Multiple Choice [20%]

This is an in-class multiple choice exam. The exam will cover all preceding material (case content excepted) and be composed of peer-written questions (see above for details). You will first write the multiple choice exam individually. Once completed individually, students will get into their course groups to complete the same test. The course group will be the same for the midterm, simulation and final case presentation. The individual submission will account for 10% of the final grade while the group submission will account for an additional 5%. Students who score individually better than their group will receive their individual test score for the full 15%.

#### Live Case Exam [20%]

The final exam takes place in two parts. It is based on a live case, in which real executives will be presenting your class with a real strategic problem that they are currently facing.

#### PART 1: Live Case Exam (Individual 10%)

During class, company executives will make a presentation in your class detailing their organization, industry, and their strategic problem. The class will continue to engage the client, asking questions and clarifying the problem through until the end of the course.

Your final solution to the case will be due at the beginning of scheduled class time during the XXXX. Each case solution must be completed individually. Students will submit their solutions through dropbox in Avenue. Submissions will be subject to the turnitin.com service and will be reviewed in accordance with the university's academic integrity policy. Please be careful to read the case exam instructions carefully. Exams that are handed in late will be penalized at a rate of 25% per day.

The case exam is considered the final comprehensive evaluation component of this course. As such, performance on this exam is critical for successful completion of this course. There will be no make-up case exam and the exam is required for completion of the course.

#### PART 2: Presentation to Executives (Shared 10%)

Following submission of the individual portion of the case exam, students will work in their course groups. They will share and then discuss their individual case exam solutions to arrive at a final recommendation and solution for the client executives. In these groups, students will then prepare a **10-minute** presentation with supporting documentation for delivery as a final exam. Groups will have **5 minutes** to answer questions. This presentation will take place on the final day of class during normal class time.

#### Experiential engagement [25%]

In groups of between 4 and 6, students will work on a real life problem facing a specific organization. This will provide students with an exciting opportunity to engage with practice using learning from this course.

#### Reflections [15%]

A key aim of this course is to provide the opportunity for students to think critically about issues presented throughout the course. Students are encouraged to actively reflect on what they have learned. At two points in the course, students will submit structured reflections.

The **first reflection is worth 5%** and will be due on XXX. The **second will be worth 10** and will be due on XXX.



Figure 1 Reflection Learning Framework

This reflection assignment uses the Reflective Learning Framework developed by Kate Whalen and Antonio Paez. Engaging in such a structured reflection helps draw meaning from experiences so that they can shape future learning. This framework encourages higher order reflection through first recounting experiences and subsequently discussing those experiences in context while connecting them to the course objectives and content. While more detail is available on Avenue, the figure shows the different components of a reflection. Incorporating these components is key to a successful reflection in this course.

Submissions will only be accepted through Avenue. Reflections must be **no more than 2 pages**, **12 point Times New Roman font**, **1.5 line spacing**, **and 1 inch margins**. **Reflections should be submitted in Word (or equivalent) format**. Late submissions will be penalized at 10% a day. A rubric is viewable in Avenue.

Please acknowledge intellectual debts and facts and figures in your reflection using a superscript number and endnotes to reports. Draw on the library citation guide

(https://library.mcmaster.ca/sites/default/files/businesscitation.pdf) paying particular attention to page 6 and page 15 for endnote and citation support.

#### **Grade Conversion**

At the end of the course, overall percentage grades will be converted to letter grades in accordance with the following conversion scheme.

AT THE END OF THE COURSE YOUR OVERALL PERCENTAGE GRADE WILL BE CONVERTED TO YOUR LETTER GRADE IN ACCORDANCE WITH THE FOLLOWING CONVERSION SCHEME.

LETTER GRADE	PERCENT	LETTER C	GRADE	PERCENT
A+	90 - 100	C+	67 - 69	
Α	85 - 89	С	63 - 66	
A-	80 - 84	C-	60 - 62	
B+	77 - 79	D+	57 - 59	
В	73 - 76	D	53 - 56	
B-	70 - 72	D-	50 - 52	
		F	00 - 49	

# Course Schedule

Week	Overview and Learning Goals	Readings and Cases
1	Introduction to Strategic Management  What is strategy?  Social responsibility  Shared Value Performance Spectrum of Organization Type	
2	<ul> <li>Analysis of External Environment</li> <li>Models of Rivalry</li> <li>Industry analysis (Porter's 5 forces, PESTEL, Strategic Groups)</li> </ul>	

3	Analysis of Internal Environment  Resource Based View (VRIO) Capabilities Value Chain	• CASE: TBD
4	Creating Value	<ul> <li>CASE: Husky Injection molding</li> </ul>
5	Vertical and Horizontal Integration  ■ Make vs buy decisions  ■ Mergers and acquisitions	CASE: The Walt Disney     Company: The     Entertainment King
6	Stakeholder Approaches	CASE: Ikea's Global Sourcing Challenge: Indian Rugs and Child Labor
7	Governance and Leadership  Different governance models  Forms of leadership	<u>CASE: Craig Kielburger: A</u> <u>Movement is Born</u>
8	Innovation  Innovation in business models  Collective Impact Social Finance Social Innovation Impact of Culture	• CASE: Honeycare case
9	Midterm	

10	Organizational Design: Structure, Culture,  Realized and emergent strategy Control and corporate governance Organizational design and structure Strategy and structure Organizational culture	· CASE: TBD·
11	Final Client Presentations	





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

33. All sections of this form must be completed	33.	All sections of this form must be completed
-------------------------------------------------	-----	---------------------------------------------

- 34. This form must be completed <u>for all</u> course changes.
- 35. If the committee has any questions regarding this proposal, who should be contacted?

Instructor or Chair Name: Stephen Heathorn (Chair)

Extension: 24850

36. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Submitted by w	hich area group (select one):		
Strategic M	anagement		
Marketing	-		
Health Police	cy and Management		
Accounting and Financial Management Services			
Finance and Business Economics			
Human Resources and Management			
Information Systems			
Operations Management			
☐ Joint Areas (please specify): <b>Department of History at the Faculty of Humanities</b>			nities
	(predect specify). Department of the colory at another		
Proposed Cours	se Details:		
Course Title: <b>History</b>	Poverty, Privilege and Protest in Canadian	Course Code: Credit Value:	IBH 3BC3
Instructor(s):	TBD		

Prerequisites: Registration in Level III or above in the Integrated Business and Humanities Program
<b>Rationale</b> : Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.
This is a new course that is to be included in the Integrated Business and Humanities (IBH) program.
<b>Course Description</b> : Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines).
An examination of the political, economic, and social factors shaping the persistence of poverty in Canada in the 1800s and 1900s, together with an analysis of reactions to such inequality. This includes investigation of ideological divisions, ethnic relations, and gender dynamics within the working class and within the labour movement.
Statement of purpose (How does the course fit into the Faculty's programme?):
This is a required course in the Integrated Business and Humanities program
Method of presentation of course material:
Lectures
Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Annotated bibliography, research paper, reflection pieces and participation, presentations, and final exam
<b>To prevent overlap</b> , is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)? $\square$ not offered elsewhere
If the proposed course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with the department/faculty.  not cross-listed elsewhere
This course will be cross-listed with HISTORY 3N03 - Poverty, Privilege and Protest in Canadian History
95

If this course is intended primarily for students <b>outside the DeGroote School of Business</b> , have you the support of the department concerned?  ontintended for students outside the faculty			
A <b>draft course outline</b> is attached to this form.  Yes it is included.			
Configuration for Mosaic Course Catalog  Component(s) required:  Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not scheduled, students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)  Lecture Tutorial Lab Seminar Field Study Independent Study Placement  Project Thesis Work Experience			
Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)			
Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.			
Is a Registrar-scheduled exam required?	⊠ Yes □ No		
What is the grading basis for the course?	Standard (A+ to F) □ Pass/Fail     Other (specify):		
Is this course repeatable for credit?	⊠No □Yes, to a maximum of units.		
Is permission required to enrol in the course?	<ul><li>No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>		
Is this a multi-term (A/B) course?	☐ Yes ☒ No		

# IBH 3BC3: Poverty, Privilege, and Protest in Canadian History Course Outline

#### **Course Description**

This course examines issues surrounding poverty, privilege, and protest in 20 century Canadian history. By doing so, the class will analyse questions related to inequality and advantage, "insiders" and "outsiders," as well as how Canadians from all walks of life fought against marginalization and exclusion. Although not strictly a course in social movements, "Poverty, Privilege, and Protest" will discuss many of the most important forms of contestation that

emerged over the course of the 20th century. For example, the class will talk about, among others, the labour movement, feminism, Black Power, and Quebec neo-nationalism. We will consider human rights in Canada, in terms of progressive legislation at the state level as well as setbacks and violations. We will also talk about the positions taken by political parties or groups on important issues defining the country. Overall, students will continue to improve their critical thinking skills. They will be asked to take into consideration the experiences and perspectives of various communities in Canada, asking fundamental questions regarding the distribution of economic and social resources. Who is a first-class citizen? Who is left out or left behind? Through lectures, discussions, and readings, we will come to an understanding regarding how Canadian citizens as well as historians thought about social inequality during the time period in question.

#### **Learning Outcomes**

This is a lecture- and discussion-based course. PowerPoint presentations will provide basic information such as lecture outlines, important names and dates as well as audio-visual aids. That being said, it is imperative that students take their own notes and attend all lectures. The information provided on the slides will be too scarce to do well on the final exam. Note taking is an important skill. Students will hone this skill over the course of the semester. My expectation is that you will come to all classes prepared to ask questions as well as actively participate with ideas and opinions inspired by the assigned materials. Through the discussions and class presentations towards the end of the semester, you will improve your public speaking skills and ability to engage in respectful debate. In preparing reflection pieces and undertaking a research paper, you will also hone your research, writing, and analytical thinking skills. The lectures and readings complement each other, but are, of course, not identical in content. The final exam will thus evaluate students' historical knowledge as well as their capacity to synthesize large amounts of information. It is impossible to get a good grade in this class without attending the lectures, completing the required readings, and handing in all assignments.

#### **Evaluation**

Annotated Bibliography: 10 percent Research Paper: 35 percent

Reflection Pieces and Class Discussion: 20 percent

Class Presentation: 5 percent Final Exam: 30 percent

Please note: Students will be marked on the logic of their argument, the quality of their written and oral expression and the depth of their research. They will never be evaluated negatively or positively based on their perceived political views.

#### **Assignments**

Annotated Bibliography and Research Paper (10% and 35%)

Students will choose a topic that interests them and touches on the themes of the course. They will then research and write a paper on this topic. They will do so in two parts.

The first assignment will be to produce an annotated bibliography in Chicago Style, outlining the topic of the research project and preliminary hypotheses in a few sentences. Students will also list and describe the relevance of at least 10 secondary sources and 5 primary sources. This assignment will serve as the basis for a fully footnoted (in Chicago Style), 8-12-page research

paper. Students are strongly encouraged to work on the paper throughout the semester and consult with the professor during office hours as needed.

#### Reading Responses and Class Participation (20%)

In preparation for the class discussion, and as part of your participation, please bring to class on Fridays a short written response (250 words) to the readings assigned for that week. These responses will serve as a form of reading journal. They should take the form of notes you keep for yourself, and should contain a brief discussion of the readings' arguments, questions these arguments evoke, and general reflections on the subject matter. Do not simply summarize the readings. The responses should also be word processed, double spaced, and include the your name. Although these responses are to be submitted at the end of every class (without exception), they will not be graded individually. Instead, you will receive a grade for Weeks 1 through 6, and a separate grade following Weeks 7 through 13. These grades will take into consideration both the written responses and participation in the discussion.

All readings can be found on Avenue to Learn

#### Class Presentations (5%)

During Week 11, students will briefly present the major findings of the paper and discuss important conclusions to the entire class. You will present your research for approximately 5 minutes and field questions and suggestions for approximately 10 minutes. This will be an opportunity to share your research with the class and, with the assistance of your classmates, hone your arguments and gain new insights. This is a mandatory exercise and worth 5 percent of your final grade. Your presentation will be marked for clarity and preparedness. It will neither negatively nor positively affect the mark you receive on your paper. You are to outline your thesis statement, describe your sources, and share interesting information with your fellow students. The point of these presentations is to improve your public speaking skills as well as the overall quality of your paper and to gain practice, in a low stakes setting, with discussion academic research with colleagues. Speaking Notes are permitted.

#### Final Exam (30%)

The final exam will consist of short and long essay questions. The exam will be held during the exam period.

#### Outline

Week 1: Course Introduction

Week 2: Confederation and Its Discontents Th Jan 11: Guest Speaker from Archives and Rare Books

Week 3: The Rise of Labour Th Jan 18: Social Reformers and Class Discussion (Reading Response #1)

#### Readings:

Suzanne Morton, "The June Bride as the Working Class Bride: Getting Married in a Working-Class Neighbourhood in the 1920s," in Canadian Family History: Selected Readings, ed. Bettina Bradbury (Toronto: Copp Clark Pitman Ltd., 1992): 360-379

Carolyn Strange, "Citizens, Workers, and Mothers of the Race" (chapter 7), Toronto's Girl Problem: Perils and Pleasures of the City, 1880-1930 (Toronto: University of Toronto Press, 1995): 175-208.

Week 4: The Limits and Possibilities of First-Wave Feminism Th Jan 25: WWI and Civil Liberties and Class Discussion (Reading Response #2)

#### Readings:

Esylit Jones, Influenza 1918: Disease, Death, and Struggle in Winnipeg. Toronto: University of Toronto Press, 2007. Chapter 2: pgs. 24-39.

Mary Ellen Kelm, "Manly Contests: Rodeo Masculinities at the Calgary Stampede," Canadian Historical Review 90, 4 (December 2009), 711-751

Week 5: WWI: Social Possibilities and Social Conflict Th Feb 1: Responses to the Great Depression I and Class Discussion (Reading Response #3)

#### Readings:

Lara Campbell, 'If He is a Man He Becomes Desperate': Unemployed Husbands, Fathers, and Workers," (Chapter 2), Respectable Citizens: Gender, Family, and Unemployment in Ontario's Great Depression (Toronto: University of Toronto Press, 2009): 57-83.

Denyse Baillargeon, "Indispensible But Not a Citizen: The Housewife in the Great Depression" in Rethinking Canada: The Promise of Women's History, fifth edition, eds. Mona Gleason and Adele Perry (Don Mills, ON: Oxford University Press, 2006): 179194.

Week 6: Responses to the Great Depression II Th Feb. 8: The Rise of the Welfare State and Class Discussion (Reading Response #4)

Ian Mosby, "Administering Colonial Science: Nutrition Research and Human Biomedical Experimentation in Aboriginal Communities and Residential Schools, 1942-1952," Histoire sociale/Social History 46, 91 (May 2013): 615-642

Lisa Pasolli, "I ask you, Mr. Mitchell, is the emergency over?": Debating Day Nurseries in the Second World War," Canadian Historical Review 96, 1 (2015): 1-31.

Week 7: WWII and "Internal Enemies" (Annotated Bibliography due) Th Feb. 15: The Making of a Cold War Security State and Class discussion (Reading Response #5)

#### Readings:

Gary Kinsman, "'Character Weaknesses' and 'Fruit Machines': Towards an Analysis of The Anti-Homosexual Security Campaign in the Canadian Civil Service," Labour/Le Travail, 35 (Spring 1995): 133-161

Week 8: Prosperity and Poverty post-1945 Th March 1: The New Left in Canada and Class Discussion (Reading Response #6)

#### Readings:

Joan Sangster, "The Polish 'Dionnes': Gender, Ethnicity, and Immigrant Workers in Post-Second World War Canada," Canadian Historical Review 88, 3 (2007): 469-500.

Asa McKercher, "Sound and Fury: Diefenbaker, Human Rights and Canadian Foreign Policy," Canadian Historical Review 97, 2 (2016): 165-194.

Tina Loo, "Africville and the Dynamics of State Power in Postwar Canada," Acadiensis 2 (2010): 23-47.

Week 9: The "Quiet Revolution" Th March 8: Documentary: Black October and Class discussion (Reading Response #7)

#### Readings:

Introduction and Chapter 3 from Sean Mills, The Empire Within: Postcolonial Thought and Political Activism in Sixties Montreal. Montreal: McGill-Queen's University Press, 2010.

Donald Cuccioletta and Matin Lubin, "The Quebec Quiet Revolution: A Noisy Evolution," Quebec Studies 36 (2003-2004): 125-138.

Week 10: "New" Social Movements I Th March 15: "New" Social Movements II and Class Discussion (Reading Response #8)

#### Readings:

Elise Chenier, "Rethinking Class in Lesbian Bar Culture: Living 'the Gay Life' in Toronto, 1955-1965." Left History 9, 2 (2004): 85-118.

Sean Mills, "Women, Gender, and Sexuality. Québécoises Déboutte! Nationalism and Feminism in Quebec, 1969-1975." In Contemporary Quebec: Selected Readings and Commentaries. Montreal: McGill-Queen's University Press, 2011. Judy Wu, "Rethinking Global Sisterhood. Peace Activism and Women's Orientalism," In No Permanent Waves. Recasting Histories of U.S. Feminism, edited by Nancy A. Hewitt, New Brunswick, New Jersey: Rutgers University Press, 2010.

#### Week 11: Class presentations

Week 12: Poverty and Exclusion in the Late 20 th Century Th March 29: Canada and the International Community and Class Discussion (Reading Response #9) PAPER DUE

#### Readings

David Austin, "All Roads Led to Montreal: Black Power, the Caribbean, and the Black Radical Tradition in Canada" The Journal of African American History 92, 4 New Black Power Studies: National, International, and Transnational Perspectives (Autumn 2007), 516-539.

Scott Rutherford, "Canada's Other Red Scare: The Anicinabe Park Occupation and Indigenous Decolonization," In The Hidden 1970s. New Brunswick: Rutgers University Press, 2010.

Week 13: Contemporary Social Movements Th April 5: Wrap-Up and Overview and Class Discussion (Reading Response #10)

#### Reading:

Catherine Carstairs, "Roots Nationalism: Branding English Canada Cool in the 1980s and 1990s," Histoire Sociale/Social History 39, 77 (2006): 235-255.

Francesca D'Amico, "'The Mic Is My Piece': Canadian Rap, the Gendered "Cool Pose" and Music Industry Racialization and Regulation," Journal of the Canadian Historical Association 26, 1 (2015): 255-290.

Madeline Rose Knickerbocker, "What We've Said Can Be Proven In The Ground:Stó:L? Sovereignty And Historical Narratives At Xá:Ytem, 1990-2006," Journal of the Canadian Historical Association 24, 1 (2013): 297-342.





# RECOMMENDATION FOR CHANGE IN UNDERGRADUATE CURRICULUM FOR 2019-2020 New Course Proposal

### DeGroote School of Business McMaster University

37. All sections of this form <u>must</u> be completed.
38. This form must be completed <u>for all</u> course changes.
39. If the committee has any questions regarding this proposal, who should be contacted?
Instructor or Chair Name: **Magda Stroinska (Chair)**Extension: 27067
40. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this

recommendation for change in undergraduate curriculum is to be discussed.

Submitted by which area group (select one):

	Strategic Management
	Marketing
	Health Policy and Management
	Accounting and Financial Management Services
	Finance and Business Economics
	Human Resources and Management
	Information Systems
	Operations Management
$\boxtimes$	Joint Areas (please specify): Department of Linguistics at the Faculty of Humanities

#### **Proposed Course Details:**

Course Title: Interpersonal Communication Course Code: IBH 3BD3

Instructor(s): TBD Credit Value: 3

Prerequisites: Registration in Level III or above in the Integrated

**Business and Humanities Program** 

<b>Rationale</b> : Explain briefly the reasons behind the recommendation. If the course is being re-named, give the old and new titles, and old and new course numbers. If the course is to be cancelled, state the rationale.
This is a new course that is to be included in the Integrated Business and Humanities (IBH) program.
<b>Course Description</b> : Provide a brief description to be included in the Undergraduate Calendar (max. 6 lines).
This course offers an introduction to contemporary interpersonal communication theories and research. Topics include: small group communication, persuasive communication, argumentation strategies, conflict resolution and computer mediated, intercultural, international and political communication.
Statement of purpose (How does the course fit into the Faculty's programme?):
This is a required course in the Integrated Business and Humanities program
Method of presentation of course material:
Lectures
Method of evaluation (exams, essays, assignments, group projects, class participation, etc.): Class participation, written assignments, self-assessments, diary assignment
<b>To prevent overlap</b> , is a similar course being offered elsewhere on campus? If so, please attach any relevant correspondence with the other area(s) or department(s)? $\square$ not offered elsewhere
If the proposed course is to be <b>cross-listed</b> in another department/faculty, please attach relevant correspondence with the department/faculty.  not cross-listed elsewhere
This course will be cross-listed with LINGUIST 4S03 – Interpersonal Communication
If this course is intended primarily for students <b>outside the DeGroote School of Business</b> , have you the support of the department concerned? $\square$ not intended for students outside the faculty
A <b>draft course outline</b> is attached to this form.  Yes it is included.
103

Configuration for Mosaic Course Catalog			
Component(s) required: Check all that apply to a maximum of 3. All components used in the catalog must be scheduled or students won't be able to enrol in the course. For example, if a course is approved with lecture and tutorial components and the tutorial is not scheduled, students will not be able to enrol into the course.  The components configured in Mosaic should also match the calendar description (i.e. if the phrase "Three hours (lectures, tutorials); one term" is used, then lectures and tutorials should be used in Mosaic.)			
<ul> <li>☑ Lecture</li> <li>☐ Tutorial</li> <li>☐ Lab</li> <li>☐ Seminar</li> <li>☐ Field Study</li> <li>☐ Independent Study</li> <li>☐ Placement</li> <li>☐ Project</li> <li>☐ Thesis</li> <li>☐ Work Experience</li> </ul>			
Default section size: (For the primary component, how many seats per section would an average offering of this course have? This can be adjusted later.)  60			
Note regarding Personal Interest Courses (PIC):  All undergraduate courses will be eligible for PIC unless they use a field study, independent study, placement or thesis component. Additionally, students are not eligible to use the PIC option for required (program) courses.			
Is a Registrar-scheduled exam required?	⊠ Yes □ No		
What is the grading basis for the course?	<ul><li> ⊠ Standard (A+ to F) □ Pass/Fail □ Other (specify):</li></ul>		
Is this course repeatable for credit?	⊠No □Yes, to a maximum of units.		
Is permission required to enrol in the course?	<ul><li>☒ No</li><li>☐ Yes; department permission</li><li>☐ Yes; instructor permission</li></ul>		
Is this a multi-term (A/B) course?	☐ Yes ☒ No		

# IBH 3BD3: Interpersonal Communication Course Outline

#### **Course Objectives:**

This course offers an introduction to contemporary interpersonal communication theories and research. Topics covered include: small group communication, persuasive communication, communication in organizations, argumentation strategies, conflict resolution, computer mediated communication, intercultural communication, political communication, communication and gender, and aspects of interpersonal communication in international contexts.

The course will help students understand the role of language (verbal communication) in interpersonal relations and will explain connection between theory and practice. Individual and group projects will help to understand and – hopefully - improve a range of interpersonal skills and apply these to personal, social, and workplace relationships. The course themes range from basic principles of interpersonal communication to topics that are rarely covered in depth in traditional academic courses, such as feedback, gossip, and communication on-line and mediated through machines (e-mail, social networks, voicemail or speech recognition systems).

The students will identify basic factors that influence human relations (anger, envy, love, fear), along with their verbal and non-verbal expressions, and will analyze them at various levels of communication (from the micro level of individual exchange to inter-group communication, and to the macro level of international conflicts). Self evaluations will help students reflect on their own work in the course.

#### **Textbooks, Materials & Fees:**

**TEXT**: Jennifer MacLennan. 2008. *Interpersonal communication for Canadians*. Oxford University Press.

#### **Method of Assessment:**

Regular Attendance and Class participation	10%
Written assignments (20% and 40%)	60%
Self-assessments (2 x 5% each)	10%
Diary Assignment	20%
Total	100%





#### DeGroote School of Business McMaster University

- 41. All sections of this form <u>must</u> be completed.
- 42. This form must be completed <u>for all</u> course changes.
- 43. If the committee has any questions regarding this proposal, who should be contacted?

Instructor's Name: Linda Stockton

Extension: 23989

A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Sub	omitted by which area group	(selec	ct one):		
X	Strategic Management				
	Marketing				
	Health Policy and Manageme	nt			
	Accounting and Financial Ma	nagen	nent Servic	es	
	Finance and Business Econor	nics			
	Human Resources and Manag	gemen	t		
	Information Systems				
	Operations Management				
	Student Experience Office				
	Joint Areas (please specify):				
Nat	ture of recommendation (che	ck wh	iichever is	appli	cable):
Ш	Course cancellation				
X	Change in prerequisites / core	equisit	es		
Ш	Change in course title				
	Change in credit value: from		credits to		credits
	Change in Academic Calenda	r Text	,		
	Other:				

#### **Current Course Description**

Course Title: International Business Course Code: 4SA3
Prerequisites: 3MC3 and enrolment in 4<sup>th</sup> year Credit Value: 3

#### **Current Calendar Text**

The key features of, and trends in, the global business environment. The implications of cultural and political differences. Comparative operational practices and multinational management. Lectures (three hours)

**Prerequisite(s):** <u>COMMERCE 3MC3</u>; and registration in Level IV of a Commerce program or Level V of any Engineering and Management program

Rationale: Explain briefly the reasons behind the recommendation.

Sometimes there students in their third year of study who completed 3MC3 in the fall term and would like to take 4SA3 in the winter term.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

The key features of, and trends in, the global business environment. The implications of cultural and political differences. Comparative operational practices and multinational management. Lectures (three hours)

**Prerequisite(s):** COMMERCE 3MC3; and registration in Level IV of a Commerce program or Level V of any Engineering and Management program or with instructor permission.





#### DeGroote School of Business McMaster University

14. 15. 16.	This form must be con	rm must be completed. mpleted for all course changes. any questions regarding this proposal, who should be contacted?
	Instructor's Name: Extension:	Linda Stockton x 23989
<b>1</b> 7.	Calendar Committee	ve will be required to attend the DeGroote Undergraduate Curriculum & meeting and the DeGroote Faculty of Business meeting at which this change in undergraduate curriculum is to be discussed.
Subn	nitted by which area gr	oup (select one):
$\boxtimes$ s	trategic Management	
N	larketing	
H	lealth Policy and Manage	ement

Accounting and Financial Management Services
Finance and Business Economics
Human Resources and Management
Information Systems
Operations Management
Student Experience Office
Joint Areas (please specify):

Nature of recommendation (check whichever is applicable):
Course cancellation
Change in prerequisites / corequisites
Change in course title
Change in credit value: from credits to credits
Change in Academic Calendar Text

Other: allow non-commerce students pursuing a minor in Business to opportunity to take International Business as an elective course.

#### **Current Course Description**

Course Title: International Business Course Code: COM 4SA3

Credit Value: 3

Rationale: Explain briefly the reasons behind the recommendation.

Non-commerce students in the Innovation minor are allowed to take International Business. This change would allow other non-commerce students enrolled in a Business Minor the opportunity.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

The key features of, and trends in, the global business environment. The implications of cultural and political differences. Comparative operational practices and multinational management.

Lectures (three hours)

Prerequisite(s): COMMERCE 3MC3; and registration in Level IV of a Commerce program or Level V of any Engineering and Management program

Submitted By: Linda Stockton

Area Chair: Nick Bontis

Signature:

**Date:** October 22, 2018

MBontis





#### DeGroote School of Business McMaster University

48.	All sections of this form <u>must</u> be completed.
49.	This form must be completed for all course change

50. If the committee has any questions regarding this proposal, who should be contacted?

Instructor's Name: Brent McKnight

Extension: x 24704

51. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

Sul	omitted by which area group	(selec	ct one):		
$\boxtimes$	Strategic Management				
	Marketing				
	Health Policy and Manageme	nt			
	Accounting and Financial Ma	nagen	nent Service	es	
	Finance and Business Econor	nics			
	Human Resources and Manag	gement	t		
	Information Systems				
	Operations Management				
	Student Experience Office				
	Joint Areas (please specify):				
Na	ture of recommendation (che	ck wh	ichever is	appli	cable):
	Course cancellation				
	Change in prerequisites / core	equisite	es		
$\boxtimes$	Change in course title				
	Change in credit value: from		credits to		credits
	Change in Academic Calenda	ır Text			
	Other:				

#### **Current Course Description**

Course Title: Corporations and Society Course Code: 4SG3
Prerequisites: Registration in Level III or IV of a four or five year Credit Value: 3

program or instructor permission

#### **Current Calendar Text**

The goal of this course is to familiarize students with a variety of sustainability related concepts including the triple bottom line, resilience, stakeholder engagement, the tragedy of the commons, sustainability and technology, and sustainable business models. Using cases, simulations, guest speakers, a group project and reflection, students will sharpen their ability to critically analyze and debate complex and systemic issues from an informed position. Students will emerge from this course understanding both the challenges and opportunities inherent in sustainability.

**Rationale**: Explain briefly the reasons behind the recommendation.

Change the course title to Sustainability: Corporations and Society to ensure that students can more readily find the course if their interest is in sustainability.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

No change to the text – just a change to the title. New title should read Sustainability: Corporations and Society





#### DeGroote School of Business McMaster University

- 52. All sections of this form <u>must</u> be completed.
- 53. This form must be completed <u>for all</u> course changes.
- 54. If the committee has any questions regarding this proposal, who should be contacted?

Instructor's Name: Linda Stockton Extension: x 23989

55. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.

bmitted by which area group (select one):
Strategic Management
Marketing
Health Policy and Management
Accounting and Financial Management Services
Finance and Business Economics
Human Resources and Management
Information Systems
Operations Management
Student Experience Office
Joint Areas (please specify):
ture of recommendation (check whichever is applicable):
Course cancellation
Change in prerequisites / corequisites
Change in course title
Change in course title Change in credit value: from credits to credits
<u>e</u>

#### **Current Course Description**

Course Title: Case Competition and Presentation Skills Course Code: COM 4SH3

Prerequisites: COM 3MC3 or instructor permission Credit Value: 3

#### **Change Course Name to:**

#### **Case Analysis and Presentation Skills**

Rationale: Explain briefly the reasons behind the recommendation.

Change the word "competition" to "analysis" because it creates confusion for students who think that this course is mandatory to compete in any case competition.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

Cases allow students to directly apply and integrate theories from various business disciplines to real-world situations/problems. Students will be working in teams and will have the opportunity to present their analysis and recommendations to a panel of judges. Hence, they will also develop their presentation skills, team and time management and communication skills. The first half of the course will provide students with the tools they need to approach case analysis. These tools include problem solving methodologies, communication approaches and team building skills. The final half of the course will allow students to practice applying these tools in case analysis situations in a three hour format. The cases will cover various industries and companies as well as different disciplines. Students will also be able to critique the analysis and presentation skills of their peers.

Lectures (three hours)

Prerequisite(s): COMMERCE 3MC3

Submitted By: Linda Stockton

Area Chair: Nick Bontis

Signature:

Date:

October 22, 2018

MBontie





#### DeGroote School of Business McMaster University

56. 57. 58.	All sections of this form This form must be comp If the committee has an	leted <u>f</u>	or all course	chan	nges. is proposal, who should be contacted?	
		Emad x 2743	Mohamm 2	ad		
59.	Calendar Committee me	eting a	nd the DeG	roote	nd the DeGroote Undergraduate Curriculum Faculty of Business meeting at which this curriculum is to be discussed.	ո &
	mitted by which area group Strategic Management Marketing Health Policy and Managem Accounting and Financial Ma Finance and Business Econo Human Resources and Mana Information Systems Operations Management Student Experience Office Joint Areas (please specify):	ent anagem mics	ent Service	es		
Natı	ure of recommendation (che	eck whi	chever is a	pplica	ble):	
	Course cancellation					
=	Change in prerequisites / co	requisit	tes			
=	Change in course title					
$\square$	Change in credit value: from		credits to		credits	

Change in Academic Calendar Text

X Other: Course Code Change

#### **Current Course Description**

Course Title: Operations Management Course Code: IBH 2BC3

Prerequisites: Registration in Level II of the Integrated Credit Value:

**Business and Humanities Program** 

**Current Calendar Text** 

#### **IBH 2BC3 - Operations Management**

3 unit(s)

Operations management (OM) is the science and art of creating and delivering goods and services to customers. Basic topics in operations management include goods and service design, facility design, locating facilities, quality management, project planning, supply chain management, lean operating systems, forecasting customer demand, process strategy, and inventory management. These days this field of study is subjected to changes and challenges. Maintaining a sustainable environment while efficiently converting resources into safe and quality outputs, coordinating between operations and other business functions, increasing profitability while providing a safe workplace and honouring stakeholder commitments are a few to mention. These topics will be discussed in this introductory operations management course. Lectures (three hours), tutorial (one hour)

Prerequisite(s): Registration in Level II of the Integrated Business and Humanities Program

**Rationale**: Explain briefly the reasons behind the recommendation.

We want to change the course code for the IBH Operations course since it will now be offered in Level III

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

#### **IBH 2BC3 3BE3 - Operations Management**

3 unit(s)

Operations management (OM) is the science and art of creating and delivering goods and services to customers. Basic topics in operations management include goods and service design, facility design, locating facilities, quality management, project planning, supply chain

management, lean operating systems, forecasting customer demand, process strategy, and inventory management. These days this field of study is subjected to changes and challenges. Maintaining a sustainable environment while efficiently converting resources into safe and quality outputs, coordinating between operations and other business functions, increasing profitability while providing a safe workplace and honouring stakeholder commitments are a few to mention. These topics will be discussed in this introductory operations management course. Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** IBH 2AD3 and registration in Level # III of the Integrated Business and Humanities Program.



60.



#### RECOMMENDATION FOR CHANGE IN **UNDERGRADUATE CURRICULUM FOR 2019-2020 Course and Calendar Change Proposal Form**

#### **DeGroote School of Business McMaster University**

60. 61. 62.	All sections of this form <u>must</u> be completed.  This form must be completed <u>for all</u> course changes.  If the committee has any questions regarding this proposal, who should be contacted?	
	Instructor's Name: Y. Lilian Chan Extension: x 23974	
63.	A faculty representative will be required to attend the DeGroote Undergraduate Curriculus Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.	
X 	Strategic Management Marketing Health Policy and Management Accounting and Financial Management Services Finance and Business Economics Human Resources and Management Information Systems Operations Management Student Experience Office Joint Areas (please specify):	
	Course cancellation Change in prerequisites / corequisites Change in course title Change in credit value: from credits to credits Change in Academic Calendar Text Other: Curriculum change re: Minor in Accounting and Financial Management Service	es

#### **Current Course Description**

Course Title:	Course Code
Prerequisites:	Credit Value

#### **Current Calendar Text**

#### Minor in Accounting and Financial Management Services

#### **Notes:**

- 1. Application for admission (forms available from the Student Experience Academic Office) must be submitted to the Student Experience Academic Office by **April 30**.
- 2. Students seeking the Minor must have completed ECON 1B03 and 1BB3 with an average of at least 7.0; or completion of ECON 2G03 or 2X03 with a minimum grade of B-.
- 3. The Minor is not open to students registered in any Commerce or Engineering and Management program.
- 4. Students seeking to obtain the Minor must complete either ECON 2G03 or 2X03, and both ECON 2B03 and 2H03 before undertaking any Level III or Level IV Accounting courses.
- For the purposes of this Minor, all courses listed as anti-requisite for COMMERCE 2QA3 in the Course Listings section of the Undergraduate Calendar will be accepted as a substitute for ECON 2B03.

#### Requirements

33 units total

#### 6 units

- ECON 1B03 Introductory Microeconomics
- ECON 1BB3 Introductory Macroeconomics

#### 3 units

- ECON 2G03 Intermediate Microeconomics I
- ECON 2X03 Applied Business Economics
- (See *Note 4* above)

#### 6 units

- ECON 2B03 Analysis of Economic Data
- ECON 2H03 Intermediate Macroeconomics I
- (See *Notes 4* and 5 above)

#### 12 units

- COMMERCE 1AA3 Introductory Financial Accounting (or 2AA3)
- COMMERCE 2AB3 Managerial Accounting I
- COMMERCE 3AB3 Intermediate Financial Accounting I
- COMMERCE 3AC3 Intermediate Financial Accounting II

#### 6 units

#### from

- COMMERCE 4AA3 Managerial Accounting II
- COMMERCE 4AC3 Advanced Financial Accounting
- COMMERCE 4AD3 Introduction to Auditing
- COMMERCE 4AX3

**Rationale**: Explain briefly the reasons behind the recommendation.

The Faculty of Social Sciences has introduced changes to their Economics course offering and will be cancelling ECON 2G03 (same as 2X03) and 2GG3; and will instead offer ECON 2Z03 and 2ZZ3. Furthermore, students completing a Minor in Accounting and Financial Management Services may be interested in pursuing the Chartered Professional Accountants (CPA) designation, which only requires completion of ECON 1B03 and 1BB3. Thus, due to changes in Economics course offering and student interest in pursuing the CPA designation, the proposed curriculum change requires six units of Economics courses (ECON 1B03 and 1BB3) and six additional units in advanced elective accounting courses.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

#### Minor in Accounting and Financial Management Services

#### **Notes:**

- 6. Application for admission (forms available from the Student Experience Academic Office) must be submitted to the Student Experience Academic Office by **April 30**.
- 7. Students seeking the Minor must have completed ECON 1B03 and 1BB3 with an average of at least 7.0; or completion of ECON 2G03 or 2X03 with a minimum grade of B.
- 8. The Minor is not open to students registered in any Commerce or Engineering and Management program.
- 9. Students seeking to obtain the Minor must complete either ECON 2G03 or 2X03, and both ECON 2B03 and 2H03 before undertaking any Level III or Level IV Accounting courses.
- 10. For the purposes of this Minor, all courses listed as anti-requisite for COMMERCE 2QA3 in the Course Listings section of the Undergraduate Calendar will be accepted as a substitute for ECON 2B03.

#### Requirements

33 30 units total

#### 6 units

- ECON 1B03 Introductory Microeconomics
- ECON 1BB3 Introductory Macroeconomics

#### 3 units

ECON 2G03 - Intermediate Microeconomics I

- ECON 2X03 Applied Business Economics
- (See Note 4 above)

#### 6 units

- ECON 2B03 Analysis of Economic Data
- ECON 2H03 Intermediate Macroeconomics I
- (See Notes 4 and 5 above)

#### 12 units

- COMMERCE 1AA3 Introductory Financial Accounting (or 2AA3)
- COMMERCE 2AB3 Managerial Accounting I
- COMMERCE 3AB3 Intermediate Financial Accounting I
- COMMERCE 3AC3 Intermediate Financial Accounting II

#### **6 12 units**

#### from

- COMMERCE 4AA3 Managerial Accounting II
- COMMERCE 4AC3 Advanced Financial Accounting
- COMMERCE 4AD3 Introduction to Auditing
- COMMERCE 4AF3 Accounting Theory
- COMMERCE 4SB3 Introduction to Canadian Taxation
- COMMERCE 4SC3 Advanced Canadian Taxation
- COMMERCE 4AX3





#### DeGroote School of Business McMaster University

64. 65. 66.		n <u>must</u> be completed. pleted <u>for all</u> course changes. ny questions regarding this proposal, who should be contacted?
	Instructor's Name: Extension:	Brian Detlor x 23949
67.	Calendar Committee me	e will be required to attend the DeGroote Undergraduate Curriculum & eeting and the DeGroote Faculty of Business meeting at which this nange in undergraduate curriculum is to be discussed.
Str Ma He Ac Fir Hu Sinf Str	rated by which area group rategic Management arketing ralth Policy and Managem counting and Financial M nance and Business Econo man Resources and Man formation Systems perations Management udent Experience Office int Areas (please specify):	nent Janagement Services Omics Jagement
Co Ch Ch Ch Ch	urse cancellation ange in prerequisites / co ange in course title ange in credit value: fron ange in Academic Calend	n credits to credits

#### **Current Calendar Text**

#### Seven required courses:

- COMMERCE 3KD3 Database Design Management & Applications
- COMMERCE 3KE3 Management of Enterprise Data Analytics
- COMMERCE 4KF3 Project Management
- COMMERCE 4KG3 Data Mining and Business Intelligence
- COMMERCE 4KH3 Strategies for Electronic and Mobile Business
- SFWR TECH 3OS3 Operating Systems
- · One of:
  - SFWR TECH 3IT3 Networking Principles
  - SFWR TECH 3PR3 Procedural and Object-Oriented Programming Concepts

#### Two elective courses from:

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 4KI3 Business Process Management
- COMMERCE 4BK3 Strategic Management of Technology
- COMMERCE 4MH3 Electronic Marketing
- SFWR TECH 3CS3 Computer Security
- SFWR TECH 3RQ3 Software Requirements and Specification
- SFWR TECH 4SD3 Software Design

#### **Suggested Revised Calendar Text**

#### Seven required Commerce courses:

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 3KD3 Database Design Management & Applications
- COMMERCE 3KE3 Management of Enterprise Data Analytics
- COMMERCE 4KF3 Project Management
- COMMERCE 4KG3 Data Mining and Business Intelligence
- COMMERCE 4KH3 Strategies for Electronic and Mobile Business
- COMMERCE 4KI3 Business Process Management

#### Two elective courses from:

- SFWR TECH 3CS3 Computer Security
- SFWR TECH 3IT3 Networking Principles
- SFWR TECH 3OS3 Operating Systems
- SFWR TECH 3PR3 Procedural and Object-Oriented Programming Concepts
- SFWR TECH 3RQ3 Software Requirements and Specification
- SFWR TECH 4SD3 Software Design

Rationale: Explain briefly the reasons behind the recommendation.

On July 3<sup>rd</sup>, 2018, the IS Area submitted the necessary paperwork to have the BTM certificate at the DeGroote School of Business officially "BTM Recognized" by <u>BTM Forum</u>. Upon review by BTM's accreditation committee, various recommendations were suggested in order to make the requirements of the certificate worthy of BTM Recognition status. The changes described below

summarize the changes requested by BTM Forum and the collective agreed-upon response from the IS Area. Please note that all faculty members within the IS Area were supportive of these changes to the BTM certificate.

The BTM review team suggested we make Comm 3KA3 and Comm 4KI3 mandatory courses for the BTM certificate. The IS Area was in 100% agreement with this recommendation and we stated in our response to the BTM review team that we would revise the requirements of the certificate accordingly. However, to accommodate this change, the IS Area has agreed to remove SFWR TECH 3OS3 as a mandatory course. This is to keep the number courses for the certificate at nine to keep the number of required courses for the certificate at a reasonable number. The IS Area also agreed to removing Commerce 4BK3 and Commerce 4MH3 as elective courses in order to ensure that students perusing the BTM certificate would pursue more technical courses.

The above changes to the certificate were agreed upon by the IS Area and submitted to BTM Forum for their review of our application to get the BTM certificate officially "BTM Recognized" in November. The BTM Forum will review this submission sometime in January, but it is expected to pass, based on email correspondence with BTM executives, since the only surmountable issue was in regards to making 3KA3 and 4KI3 part of the mandatory certificate requirements.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

#### **Current BTM Certificate Requirements with Strikethrough Edits**

#### Seven required courses:

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 3KD3 Database Design Management & Applications
- COMMERCE 3KE3 Management of Enterprise Data Analytics
- COMMERCE 4KF3 Project Management
- COMMERCE 4KG3 Data Mining and Business Intelligence
- COMMERCE 4KH3 Strategies for Electronic and Mobile Business
- COMMERCE 4KI3 Business Process Management
- SFWR TECH 3OS3 Operating Systems
- · One of:
  - SFWR TECH 3IT3 Networking Principles
  - SFWR TECH 3PR3 Procedural and Object Oriented Programming Concepts

#### Two elective courses from:

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 4KI3 Business Process Management
- COMMERCE 4BK3 Strategic Management of Technology
- COMMERCE 4MH3 Electronic Marketing
- SFWR TECH 3CS3 Computer Security
- SFWR TECH 3IT3 Networking Principles
- SFWR TECH 3OS3 Operating Systems
- SFWR TECH 3PR3 Procedural and Object-Oriented Programming Concepts
- SFWR TECH 3RQ3 Software Requirements and Specification
- SFWR TECH 4SD3 Software Design





#### DeGroote School of Business McMaster University

68. 69. 70.		must be completed. Deted for all course changes. If y questions regarding this proposal, who should be contacted?
	Instructor's Name: Extension:	Yufei Yuan x <b>23982</b>
71.	Calendar Committee m	e will be required to attend the DeGroote Undergraduate Curriculum & eeting and the DeGroote Faculty of Business meeting at which this ange in undergraduate curriculum is to be discussed.
Stra  Ma Hea Acc Fina Hur x Int Stu	ted by which area group ategic Management rketing alth Policy and Managem counting and Financial M ance and Business Econo man Resources and Man formation Systems erations Management dent Experience Office at Areas (please specify):	nent anagement Services omics agement
☐ Cou x☐ Ch x☐ Cha	of recommendation (churse cancellation hange in prerequisites / change in course title hange in credit value: from hange in Academic Calen	credits to credits

Other:			
Current Course	Description		
Course Title:	Data Mining and Business Intelligence	Course Code:	4KG3
Prerequisites:	COMMERCE 2KA3; Enrollment in Level III or above	Credit Value:	3
of an Honours	Commerce or Engineering & Management program; Level IV of the Commerce program.		

#### **Current Calendar Text**

Business intelligence (BI) is a technology-driven process for analysing data and presenting actionable information to help corporate executives, business managers and other end users make more informed business decisions. The course is designed for students in multiple business areas. Students will learn the concepts, techniques, and applications of data mining for business intelligence through lectures, class discussions, hands-on assignments, and term paper presentations.

Lectures (three hours)

**Prerequisite(s):** COMMERCE 2KA3; Enrollment in Level III or above of an Honours Commerce or Engineering & Management program; or enrollment in Level IV of the Commerce program.

Rationale: Explain briefly the reasons behind the recommendation.

I change course title from Data Mining and Business Intelligence to Data Mining for Business Analytics because the terminology has been changed in industry. Today Business Intelligence refers mainly to reporting and data visualization, while Business Analytics has taken over the advanced analytics, which include predictive analytics and data mining.

For prerequisite, I change Commerce 2KA3 to Commerce 2QA3 or equivalent because basic statistics knowledge is essential for learning business analytics. The course may open to students in other program related to data analysis such as in mathematics or computer science with special permission from the instructor. For instance, a student from Math and Stats specializing in Actuarial Science and Financial Mathematics wanted to take this course.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

COMMERCE 4KG3 - Data Mining and For Business Intelligence Analytics 3 unit(s)

Business intelligence (BI) Analytics (BA) is a technology-driven process for analyzing data and presenting actionable information to help corporate executives, business managers and other end users make more informed business decisions. The course is designed for students in multiple business areas. Students will learn the concepts, techniques, and applications of data mining for and business intelligence

analytics through lectures, class discussions, hands-on assignments, and term paper seminar presentations. Lectures (three hours) Prerequisite(s): COMMERCE 2KA3; 2QA3 (or equivalent) and Enrollment in Level III or above of an Honours Commerce or Engineering & Management program; or enrollment in Level IV of the Commerce program; or instructor permission. 126





#### DeGroote School of Business McMaster University

72. 73. 74.	All sections of this form <u>must</u> be completed. This form must be completed <u>for all</u> course changes. If the committee has any questions regarding this proposal, who should be contacted?					
	Instructor's Name: Extension:	Lilian Chan x 23974				
75.	A faculty representative will be required to attend the DeGroote Undergraduate Curriculum & Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.					
Subn	nitted by which area grou	p (select one):				
s	Strategic Management					
N	Marketing					
H	Health Policy and Management					
$\boxtimes$ A	Accounting and Financial Management Services					
F	Finance and Business Economics					
H	Human Resources and Ma	nagement				
	Information Systems					

Joint Areas (please specify):					
Nature of recommendation (che	ck whi	chever is a	pplicat	ole):	
Change in prerequisites / corequisites					
Change in course title					
Change in credit value: from		credits to		credits	
Change in Academic Calenda	r Text				

Operations Management Student Experience Office Mother: Addition Tutorial

#### **Current Course Description**

Course Title: Intermediate Financial Accounting I Course Code: 3AB3
Credit Value: 3 units

Prerequisites: <u>COMMERCE 1AA3</u> and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

#### **Current Calendar Text**

A first course in intermediate financial accounting dealing with the theory and practice of financial statement preparation and reporting. The emphasis will be on asset valuation and the related impact on income measurement.

Lectures (three hours)

Rationale: Explain briefly the reasons behind the recommendation.

Addition tutorial to provide additional opportunities for support and engagement with students.

Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

COMMERCE 3AB3 - Intermediate Financial Accounting I 3 unit(s)

A first course in intermediate financial accounting dealing with the theory and practice of financial statement preparation and reporting. The emphasis will be on asset valuation and the related impact on income measurement.

Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** COMMERCE 1AA3 and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.





#### DeGroote School of Business McMaster University

<ul> <li>76. All sections of this form <u>must</u> be completed.</li> <li>77. This form must be completed <u>for all</u> course changes.</li> <li>78. If the committee has any questions regarding this proposal, who should be completed.</li> </ul>						
	Instructor's Name: Lilian Chan Extension: x 23974					
79.	. A faculty representative will be required to attend the DeGroote Undergraduate Curriculum of Calendar Committee meeting and the DeGroote Faculty of Business meeting at which this recommendation for change in undergraduate curriculum is to be discussed.					
Sul	omitted by which area group (select one):					
Ц	Strategic Management					
닏	Marketing					
Ц	Health Policy and Management					
$\bowtie$	Accounting and Financial Management Services					
Ц	Finance and Business Economics					
$\sqsubseteq$	Human Resources and Management					
Ц	Information Systems					
Ц	Operations Management					
Ц	Student Experience Office					
Ш	Joint Areas (please specify):					
Na	ture of recommendation (check whichever is applicable):					
	Course cancellation					
	Change in prerequisites / corequisites					
П	Change in course title					
	Change in credit value: from credits to credits					
$\overline{\Box}$	Change in Academic Calendar Text					

**⊠** Other: **Addition Tutorial** 

#### **Current Course Description**

Course Title: Intermediate Financial Accounting II Course Code: 3AC3
Credit Value: 3 units

Prerequisites: <u>COMMERCE 3AB3</u> and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.

#### **Current Calendar Text**

A second course in intermediate financial accounting dealing with reporting issues that relate to liabilities and owners' equity. In particular, the concepts of recognition, measurement and disclosure of such items as bonds, taxes, leases and pensions as well as the phenomenon of off-balance sheet financing are examined.

Lectures (three hours)

Rationale: Explain briefly the reasons behind the recommendation.

Addition tutorial to provide additional opportunities for support and engagement with students.

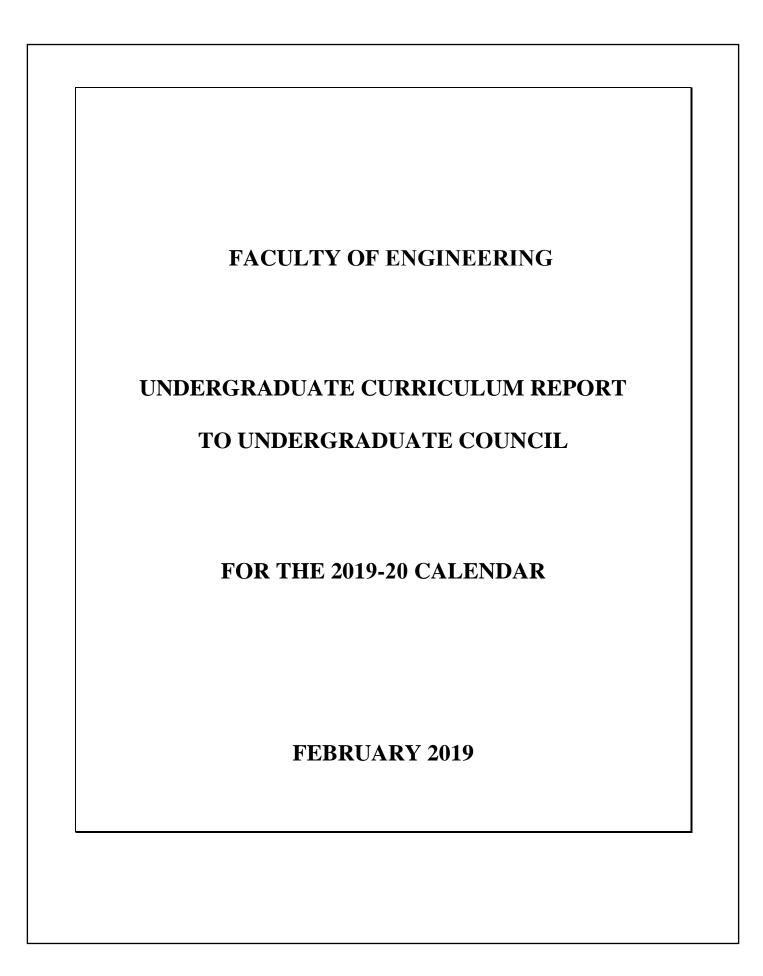
Please copy and paste the text as it appears now in the calendar, and then provide a strikethrough edit as proposed. Please visit <a href="http://academiccalendars.romcmaster.ca">http://academiccalendars.romcmaster.ca</a> for the most complete version of this calendar.

COMMERCE 3AC3 - Intermediate Financial Accounting II 3 unit(s)

A second course in intermediate financial accounting dealing with reporting issues that relate to liabilities and owners' equity. In particular, the concepts of recognition, measurement and disclosure of such items as bonds, taxes, leases and pensions as well as the phenomenon of off-balance sheet financing are examined.

Lectures (three hours), tutorial (one hour)

**Prerequisite(s):** <u>COMMERCE 3AB3</u> and registration in level III or above in any Honours Commerce or Engineering and Management program or Level IV of the Commerce program.



January 10, 2019

#### Proposed Engineering I program changes for 2020-21

New course: ENGINEER 1P13

Deletion of courses: ENGINEER 1C03, ENGINEER 1D04, ENGINEER 1P03, MATLS 1M03

#### ENGINEER 1P13 A/B - Integrated Design Solutions in Engineering

13 unit(s)

Project-based integrated learning course that introduces a range of fundamental topics in engineering, including engineering design and communication, computation, graphic design, materials and the engineering profession. These topics are applied through a series of integrated team-based design projects.

Three lectures, one tutorial (two hours), two labs (three hours) weekly

Prerequisite(s): Registration in Engineering I program

Antirequisite(s): ENGINEER 1C03, ENGINEER 1D04, ENGINEER 1P03, IBEHS 1P10 A/B, MATLS 1M03

#### Rationale:

This new course replaces the following courses offered in Engineering I: ENGINEER 1C03, ENGINEER 1D04, ENGINEER 1P03 AND MATLS 1M03 and all current content from these courses will continue to be covered in the new project based format. Students will be introduced to a breadth of topics fundamental to engineering, but rather than compartmentalizing them in individual courses, this course will apply a broad-fields approach to learning, allowing students to better see the connections between topics. A series of integrated design projects throughout the year will require students to tackle several unique challenges that reflect real world problems, thus offering more meaningful learning experiences.

This course is designed to facilitate deeper learning. In this course students will learn to integrate a broad range of concepts and knowledge to solve problems typical of real-world engineering. Through the project-based approach students will achieve all existing learning outcomes. In addition, they will develop the ability to customize their learning to adapt to the rapidly changing challenges of a future world. In keeping with this objective, the course projects will initially follow a smart systems theme. The ongoing intent is that this theme will be changed according to the evolving needs of society.

#### W. Booth School of Engineering Practice and Technology

#### PROCTECH 4SS3 - System Specification and Design

3 unit(s)

This course focuses on requirement analysis, functional design, detailed design, reliability, maintainability and system life cycle. Methodologies and tools, requirements and validations, requirements for safety-related systems and mission critical systems. Two lectures, one tutorial; first term

Prerequisite(s): PROCTECH 2CA3, 4TR1; ENGTECH 4EE0 and registration in level IV of Automation Engineering Technology Co-op (B.Tech.)

#### SMRTTECH 4ES3 - Embedded Systems

3 unit(s)

This course teaches the design and implementation of embedded hardware and software systems. Topics covered include design of real-time embedded systems, hardware, interfacing a variety of external devices, control systems, real-time operating systems, and real-time issues pertinent to embedded control systems.

Three lectures, one lab (three hours); second term

Prerequisite(s): PROCTECH 2EE3, ENGTECH 1CP3, ENGTECH 1PR3 and registration in level IV of Automation Engineering

Technology and permission from the Department

Co-requisite(s): SMRTTECH 4ID3

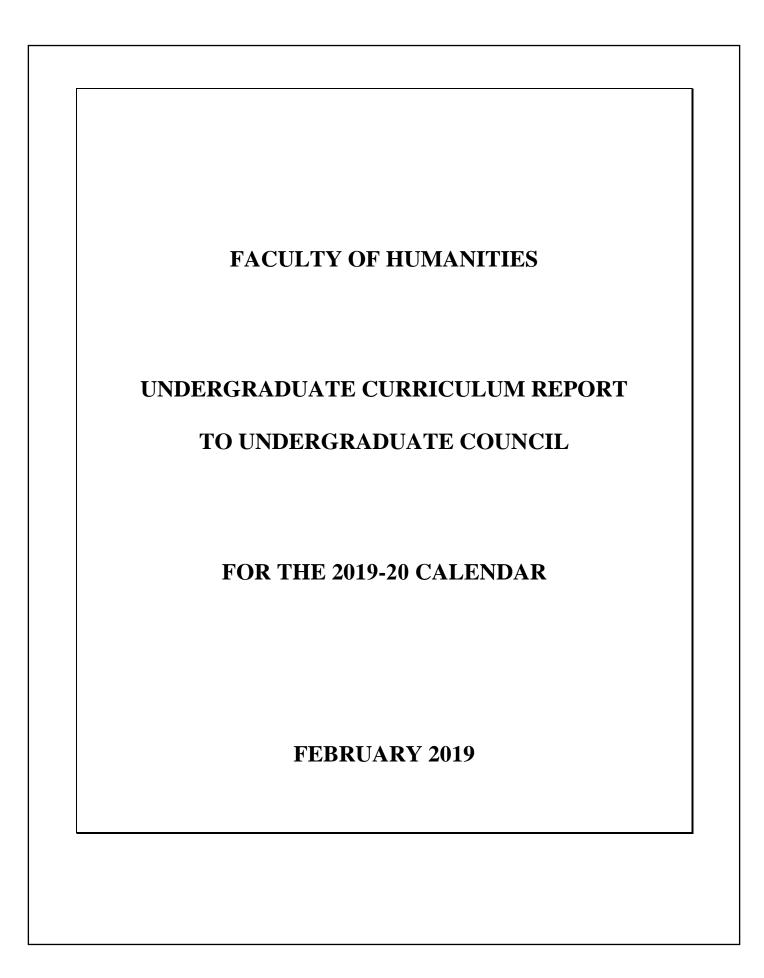
#### **SMRTTECH 4ID3 - IoT Devices and Networks**

3 unit(s)

This course teaches how the Internet of Things IoT works. Students learn about IoT networks and how 'things' connect to networks, including whether the connection and processing is local (fog computing), is on the network edge (edge computing), or is remote (cloud computing). In addition students learn IoT data networks, connection types, layer models and IoT network protocols and standards. Three Lectures, one lab (3 hours); second term (to be offered in Winter 2020)

Prerequisite(s): PROCTECH 3CC3 and registration in level IV of Automation Engineering Technology and permission from the Department

Co-requisite(s): SMRTTECH 4ES3



## FACULTY OF HUMANITIES CURRICULUM REVISIONS FOR 2019-20 Addendum

#### 1.0 NEW COURSES:

#### 1.1 HUMAN 4CM3 - Cross-cultural Mentoring and Coaching Practicum

3 unit(s)

This course consists of an on-campus placement in embedded mentoring and coaching. Students will participate in the peer mentoring of international students in the McMaster English Language Development (MELD) program, as well as develop coaching skills through their contributions to the training of first-time peer mentors. Since this course consists of a work placement, students will also further develop essential skills in workplace accountability, collaboration and communication, through interactions and regular team meetings with MELD staff. Students are expected to document their experience and to submit an interim report, and final report or portfolio. This course is graded on a Pass/Fail basis

Placement (four-five hours weekly), training and collaboration (one hour weekly); one term **Prerequisite(s):** HUMAN 3CM3 and permission of the Associate Dean (Humanities) or delegate

Enrolment: 12

Reserve capacities: n/a

**Rationale:** This course is currently being offered on Dean's letter, and will be included as a course option for those pursuing the Leadership and Cross-Cultural Literacy concurrent certificate option.

#### 2.0 REVISIONS TO EXISTING COURSES:

#### 2.1 HUMAN 2DH3 - Introduction to Digital Humanities

3 unit(s)

This course will introduce students to digital humanities research methods and tools. Students will learn about three primary impulses that drive digital scholarship: analysis, preservation, and resource creation. They will work with existing digital resources, learning to use and assess them effectively; and will also digitize material to create new resources while learning about copyright, intellectual property, and accessibility.

Three hours; one term

**Prerequisite(s):** Registration in Level II or above of a program in the Faculty of Humanities; or permission of the instructor

**Rationale:** As the subject matter is relevant to all disciplines, the course will now be opened up to students outside the Faculty of Humanities.

#### 2.2 HUMAN 4RM3 - Leadership: Relationship Management

3 unit(s)

Team work, conflict management, negotiation, giving and receiving feedback, communicating vision and expectations these are all key elements of leadership. Ultimately, succeeding in these areas is about managing relationships. Building upon the foundational elements of leadership already acquired, students will gain a deeper awareness of their own and others' motivations, strengths, filters, and responses to conflict, of and how to apply this knowledge to communicate effectively.

Three hours; one term

**Prerequisite(s):** HUMAN 3CM3 or 3LM3; and permission of the Associate Dean (Humanities) or delegate **Anti-requisite(s):** HUMAN 4LM3

**Rationale:** With the recent addition of the HUMAN 3CM3 course, it is appropriate that either level 3 course be used as fulfilment of this prerequisite.

#### 2.3 PHILOS 2D03 - Bioethics

3 unit(s)

An introduction to moral philosophy, through a consideration of issues in health care ethics. Topics such as abortion, human experimentation, euthanasia, and genetic screening will be investigated.

Two lectures, one tutorial; one term

Prerequisite(s): Registration in Level II or above

Antirequisite(s): IBH 2BD3, HTHSCI 3L03, PEACEST 2D03, RELIGST 2C03

Rationale: Addition of antirequisite for IBH program students.

#### 2.4 PHILOS 2YY3 - Ethics

3 unit(s)

An introduction to moral philosophy and its application to contemporary moral problems. Topics may include the objectivity of values, the nature of moral judgments, rights and duties, virtues, and consequentialism.

Two lectures, one tutorial; one term

Prerequisite(s): Registration in Level II or above

Antirequisite(s): IBH 1BC3

**Rationale**: Addition of antirequisite for IBH program students.

#### 2.5 THTRFLM 3L03 - Cinema History from WWII/ARTHIST 3XX3 - Cinema History from WWII

3 unit(s)

An exploration of narrative film from 1941 to the present day, incorporating a study of a variety of narrative cinema styles. Theoretical issues will include questions of cinema's relationship to other art forms, narrative, genre and authorship.

Two lectures, plus one weekly film screening; one term

Prerequisite(s): One of ARTHIST 2FL3, ARTHIST 3FL3, THTRFLM 2FF3, THTRFLM 3FF3 is recommended

Rationale: Students are encouraged to have first completed an initial cinema history course.

#### 3.0 REVISIONS TO EXISTING PROGRAMS:

#### 3.1 Humanities 1

Course List 2

(Humanities courses available to Level I students. These courses do not provide entry into a Level II program)

- ART 1TI3 Making Art and Understanding Technology & Images
- ART 1UI3 Making Art and Understanding Images
- CHINESE 1Z06 A/B Mandarin Chinese for Beginners
- GERMAN 1B03 Intermediate German I
- GERMAN 1BB3 Intermediate German II
- GERMAN 1Z06 A/B Beginner's Intensive German
- HUMAN 1QU3 Insight and Inquiry: Questions to Change the World
- ITALIAN 1A03 Intermediate Italian I
- ITALIAN 1AA3 Intermediate Italian II

- ITALIAN 1Z06 A/B S Beginner's Intensive Italian
- JAPANESE 1Z06 A/B S Beginner's Intensive Japanese
- LINGUIST 1Z03 Structure of Modern English I
- LINGUIST 1ZZ3 Structure of Modern English II
- MUSIC 1EE6 A/B Solo Performance \*
- MUSIC 1GB3 A/B Ensemble Performance: McMaster Concert Band \*
- MUSIC 1GC3 A/B Ensemble Performance: McMaster University Choir \*
- MUSIC 1GF3 A/B Ensemble Performance: McMaster University Flute Ensemble \*
- MUSIC 1GJ3 A/B Ensemble Performance: McMaster Jazz Band \*
- MUSIC 1GP3 A/B Ensemble Performance: McMaster Percussion Ensemble \*
- MUSIC 1GR3 A/B Ensemble Performance: McMaster Chamber Orchestra \*
- MUSIC 1GW3 A/B Ensemble Performance: McMaster Women's Choir \*
- POLISH 1Z03 Beginner's Polish I
- POLISH 1ZZ3 Beginner's Polish II
- RUSSIAN 1Z03 Intensive Beginner's Russian I
- RUSSIAN 1ZZ3 Intensive Beginner's Russian II
- SPANISH 1A03 Intermediate Spanish I
- SPANISH 1AA3 Intermediate Spanish II
- SPANISH 1Z06 A/B Beginner's Intensive Spanish
- WOMENST 1A03 Women, Culture, Power
- WOMENST 1AA3 Women Transforming the World

Rationale: First-year humanities students are encouraged to consider completion of HUMAN 1QU3.

# **FACULTY OF SCIENCE** UNDERGRADUATE CURRICULUM REPORT TO **UNDERGRADUATE COUNCIL FOR THE 2019-20 CALENDAR FEBRUARY 2019**

### FACULTY OF SCIENCE CURRICULUM CHANGES FOR THE 2019-2020 CALENDAR ADDENDUM

#### **DEPARTMENT OF CHEMISTRY**

#### 1.0 NEW COURSE:

#### 1.1 CHEM 4D03 ORGANIC STRUCTURE AND SYNTHESIS

Application of spectroscopic methods to structure determination. Synthetic methodology in organic chemistry.

Three lectures; one term

Prerequisite(s): CHEM 3OA3 or CHEMBIO 3OA3

May be offered in alternate years; offered in 2019-2020.

**Enrolment Capacity: 50** 

Justification:

Course removed from the Undergraduate Calendar years ago; however, there is now a curriculum need to resume the offering.

\*\*\*\*\*\*\*\*

#### SCHOOL OF INTERDISCIPLINARY SCIENCE

#### 1.0 NEW COURSES:

#### 1.1 LIFESCI 4H03 – Regeneration: What Can We Learn From Animal Models?

Regeneration is the process by which lost body parts are replaced or restored. There is widespread variability in the ability of organisms to regenerate. In this course we will explore, through the examination of the current scientific literature, what is known about the molecular mechanisms underlying this process and the current tools employed to explore this highly sought after ability. Seminar and discussions in small groups

Pre-requisite: Registration in Level IV of an Honours Life Science program.

Preferential enrolment is done by preregistration ballot (See Department Note 2 above).

**Enrollment Capacity: 25** 

Justification:

Previously offered on Dean's Permission, student interest and demand warrants becoming a permanent offering.

1

#### 1.2 LIFESCI 4I03 – Research Seminar

Advanced seminar focusing on selected topics in an area of Life Sciences.

Seminar and discussion in small groups (three hours); one term

Pre-requisite: Registration in Level IV of an Honours Life Science program.

Preferential enrolment is done by preregistration ballot (See Department Note 2 above).

**Enrollment Capacity: 25** 

Justification:

Student demand warrants the need for an additional generic course code through which topics are offered.

#### 1.3 LIFESCI 4003 - Research Seminar

Advanced seminar focusing on selected topics in an area of Life Sciences.

Seminar and discussion in small groups (three hours); one term

Pre-requisite: Registration in Level IV of an Honours Life Science program.

Preferential enrolment is done by preregistration ballot (See Department Note 2 above).

**Enrollment Capacity: 25** 

Justification:

Student demand warrants the need for an additional generic course code through which topics are offered.

\*\*\*\*\*\*\*\*

#### **DEPARTMENT OF PSYCHOLOGY, NEUROSCIENCE & BEHAVIOUR**

#### 1.0 CHANGES TO EXISTING PROGRAMS:

#### 1.1 Honours Psychology, Neuroscience & Behaviour - Mental Health Specialization (B.Sc.) Admission Notes

- 1. Completion of CHEM 1A03 and one of BIOPHYS 1S03, PHYSICS 1A03, 1C03 is required by the end of Level II, however, at least one of BIOPHYS 1S03, CHEM 1A03, PHYSICS 1A03, 1C03 is required for admission. It is recommended that both CHEM 1A03 and one of BIOPHYS 1S03, PHYSICS 1A03, 1C03 be completed in Level I. Concepts from PHYSICS 1CC3 are particularly useful for understanding neuroscience, mathematical modelling, and perception. Students interested in these areas are encouraged to take PHYSICS 1C03 and 1CC3.
- 2. Either PSYCH 1FF3 or 1XX3 is required for admission, however PSYCH 1XX3 is recommended. Completion of either PSYCH 1F03 or 1X03 is required by the end of Level II but PSYCH 1X03 is recommended in Level I.

Admission

2

**Enrolment in this program is limited** and possession of the published minimum requirements does not guarantee admission. Selection is based on academic achievement but requires, as a minimum, completion of any Level I program with a Grade Point Average of at least 5.0 including:

3 units from the following courses, with a grade of at least B-

- PSYCH 1FF3 Survey of Biological Basis of Psychology
- PSYCH 1XX3 Foundations of Psychology, Neuroscience & Behaviour

(See Admission Note 2 above.)

#### 3 units from

- MATH 1A03 Calculus For Science I
- MATH 1LS3 Calculus for the Life Sciences I

#### 6 units

- BIOLOGY 1A03 Cellular and Molecular Biology
- BIOLOGY 1M03 Biodiversity, Evolution and Humanity

#### 3 units from

- BIOPHYS 1S03 Biophysics of Movement and the Senses: From Microbes to Moose
- CHEM 1A03 Introductory Chemistry I
- PHYSICS 1A03 Introductory Physics
- PHYSICS 1C03 Physics for the Chemical and Physical Sciences

(See Admission Note 1 above.)

#### 9 units from

• the Science I Course List (See Admission Notes above.)

#### **Program Note**

The Department of Psychology, Neuroscience & Behaviour pre-registration ballot will include the thesis course (PNB 4D09 A/B), and the individual study courses (PNB 3Q03 A/B S, 3QQ3 A/B S, 4Q03 A/B S, 4QQ3 A/B S). Students wishing to take these courses must complete and submit a ballot by **mid February**. Students will be informed of the outcome by **mid March**. Specific dates will be announced during the fall term. Ballots can be obtained from the Department of Psychology, Neuroscience & Behaviour web site at http://pnb.mcmaster.ca/.

Mental Health Course List

- PNB 3DV3
- PNB 3EE3 Perception Laboratory
- PNB 3EV3 Evolutionary Psychology Lab
- PNB 3I06 A/B Practica in Psychology
- PNB 3L03 Neurodevelopment & Plasticity Lab
- PNB 3LA3
- PNB 3MM3 Cognitive Neuroscience Lab
- PNB 3QQ3 A/B S Individual Lab Study
- PNB 3S03 Animal Behaviour Lab
- PNB 3V03 Laboratory in Human Memory and Cognition
- PNB 4G03
- PSYCH 3BA3 Positive Psychology
- PSYCH 3CC3 Forensic Psychology
- PSYCH 3EV3 Evolution and Mental Health
- PSYCH 3F03 Evolution and Human Behaviour
- PSYCH 3HH3
- PSYCH 3II3
- PSYCH 3JJ3 Socio-Emotional Development
- PSYCH 3M03 Motivation and Emotion

3

- PSYCH 3T03 Behavioural Ecology
- PSYCH 3VV3 Human Memory
- PSYCH 4S03 Genetics, Behaviour and Evolution
- PSYCH 4Y03 Hormones, Neurochemistry and Behaviour

#### Requirements

120 units total (Levels I to IV), of which no more than 48 units may be Level I

Level I: 30 Units

30 units

(See Admission above.)

Level II: 30 Units

#### 18 units

- PNB 2XA3 Human Perception & Cognition
- PNB 2XB3 Neuroanatomy & Neurophysiology
- PNB 2XC3 Animal Behaviour & Evolution
- PNB 2XD3 Integrative PNB Through Scientific Writing
- PNB 2XE3 Data and Descriptive Statistics
- PNB 2XF3 Perspectives in PNB
- PNB 2XT0 PNB Tutorial

#### 6 units

- PSYCH 2AP3 Abnormal Psychology: Fundamentals and Major Disorders
- PSYCH 2B03 Personality

0-3 units from the following courses, if not completed in Level I

- BIOPHYS 1S03 Biophysics of Movement and the Senses: From Microbes to Moose
- CHEM 1A03 Introductory Chemistry I
- PHYSICS 1A03 Introductory Physics
- PHYSICS 1B03
- PHYSICS 1C03 Physics for the Chemical and Physical Sciences
- PHYSICS 1L03

(See Admission Note 1 above.)

0-3 units from the following courses, if not completed in Level 1

- PSYCH 1F03 Survey of Psychology or
- PSYCH 1X03 Introduction to Psychology, Neuroscience & Behaviour

(See Admission Note 2 above.)

#### 0-6 units

Electives

Level III: 30 Units

#### 18 12 units

- PNB 3HP3 History of Psychology
- PNB 3I06 A/B Practica in Psychology
- PNB 3RM3 Research Methods
- PNB 3XE3 Inferential Statistics
- PSYCH 3GG3 Essentials of Developmental Psychology

#### 6 9 units from

the Mental Health Course List

#### 6 9 units

Electives

Level IV: 30 Units

9 units

4

- PNB 4A03 Assessment in Children
- PSYCH 3B03 Special Populations
- PSYCH 3MT3 Psychometrics

3 units from

the Mental Health Course List

9 units

PNB 4D09 A/B - Senior Honours Thesis

(See Program Note above.)

9 units

Electives

#### Justification:

Currently, PNB 3106 is required for students enrolled in Hons Psychology, Neuroscience and Behaviour, Mental Health Specialization. Given some recent changes in the community, the Department cannot guarantee that every student will be able to find a suitable placement/ supervisor and, therefore, PNB 3106 is becoming optional. The change is effective immediately, for all in-course students. It will be replaced by three units of Mental Health Course List plus three units of elective.

# **Faculty of Social Sciences** Addendum to the Undergraduate Curriculum Report to **Undergraduate Council** FOR THE 2019 - 20 UNDERGRADUATE **CALENDAR** February 12, 2019

Page 1 of 14

# **REPORT TO SENATE** 1.0 **NEW PROGRAMS: N/A** 2.0 **NEW MINORS: N/A** 3.0 PROGRAM CLOSURES: N/A 4.0 **MAJOR REVISIONS TO EXISTING PROGRAMS: NA**

Page 2 of 14

## Faculty of Social Sciences Addendum to the REPORT TO UNDERGRADUATE COUNCIL SUMMARY OF CURRICULUM CHANGES FOR 2019 - 20

This summary report highlights substantive changes being proposed. The complete set of changes are attached for your reference.

#### 1. Department of Anthropology

Increase in course capacity for one course (ANTHROP 2C03)

#### 2. Indigenous Studies Program

- Change to Combined Honours and Honours BA in Indigenous Studies programs to include the INDIGST 3L03 in the listing of Level 3 courses.
- Addition of 1 new crosslisting (INDIGST 1AA3)
- Removal of 1 crosslisting (INDIGST 2MM3)

#### 3. Department of Political Science

- Changes to Honours Political Science Specialization in Public Law and Judicial Studies (B.A.) program to include 2 newly introduced courses.
- Introduction of 2 new courses (POLSCI 3JR3, 3LP3)
- Changes to Fields of Study to include the two new courses.

#### 4. Faculty of Social Sciences

- Under the Admissions Requirements/Section B From Colleges of Applied Arts and Technology, the addition of admission requirements for Economics and Health and Society.
- Addition (re-introduction of a previous course) (SOCSCI 1HS3)

## ADDENDUM TO THE FACULTY OF SOCIAL SCIENCES Curriculum Report for 2019-20 To Undergraduate Council February 12, 2019

#### **ANTHROPOLOGY**

#### 1.0 REVISIONS TO EXISTING COURSES:

## **1.1 ANTHROP 2C03 - Archaeology of Environmental Crisis and Response** 3 units

Examination of the influence of natural and human-induced environmental crises on long term culture histories.

Lectures and discussion (three hours); one term

**Prerequisite(s):** Three units of Level I Anthropology and registration in Level II or above in any program

Course Capacity: 24 50

\*\*\*\*\*\*

#### **INDIGENOUS STUDIES**

#### 1.0 REVISIONS TO EXISTING PROGRAMS:

#### 1.1 Combined Honours in Indigenous Studies and Another Subject (B.A.)

#### Admission

Completion of any Level I program, with a Grade Point Average of at least 5.0 and a grade of C in one of INDIGST 1A03, 1AA3 or RECONCIL 1A03. Satisfaction of the admission requirements for the Honours program in the other B.A. subject. For continuation in the program, see *Minimum Requirements for Entering and Continuing in a Program Beyond Level I* in the Faculty of Social Sciences Academic Regulations.

#### **Notes**

- Those students who completed INDIGST 2M06 A/B prior to September 2017 can use these 6-units towards the fulfillment of INDIGST 2M03 and INDIGST 2MM3. Those students who completed INDIGST 2AA3 prior to September 2016 may request approval of an additional 3-unit research methodology course, to use in fulfillment of this 6-unit research methodology requirement. Students are encouraged to consult the ISP Director for approval of an alternate applicable course.
- 2. Students who have completed only 3 units of level I Indigenous Studies will be required to complete 3 more units of Level I Indigenous Studies by the end of the following academic year.

#### Course List

- ANTHROP 2BB3 Ancient Mesoamerica: Aztecs to Zapotecs
- ANTHROP 3Y03 Indigenous Community Health and Well-Being
- CAYUGA 2Z03 Intermediate Cayuga
- CSCT 4RI3

Page 4 of 14

- ENGLISH 3W03 Contemporary Native Literature in Canada
- ENGLISH 3X03 Contemporary Native Literature in the United States
- HISTORY 2T03 Survey of Canadian History, Beginnings to 1885
- HISTORY 2TT3 Survey of Canadian History, 1885 to the Present
- HISTORY 3CW3 Canada in a World of Empires, 1492-1919
- INUKTUT 2Z03 Intermediate Inuktitut
- MOHAWK 2Z03 Intermediate Mohawk
- OJIBWE 2Z03 Intermediate Ojibwe
- PEACEST 2C03 Peace and Popular Culture
- PEACEST 3B03 Peace-Building and Health Initiatives
- PEACEST 3W03 Contemporary Native Literature in Canada
- PHILOS 3L03 Environmental Philosophy
- POLSCI 2F03 Politics, Power and Influence in Canada
- POLSCI 3C03 Government and Politics of Indigenous People
- POLSCI 3F03
- SOCIOL 4RR3 Indigenous Peoples and Canada
- SOCWORK 3I03 Social Work and Indigenous Peoples
- SOCWORK 4QQ3 Indigenizing Social Work Practice Approaches
- SOCWORK 3Q03
- SOCWORK 4103

#### Requirements

120 units total (Level I to IV), of which 48 units may be Level I 30 units from

• Level I completed prior to admission to the program (See Admission above.)

#### 9 units from

- INDIGST 2A03 Indigenous Peoples' Spirituality
- INDIGST 2B03 History of Indigenous Peoples' Sovereignty
- INDIGST 2BB3 Contemporary Indigenous Knowledge and Societies
- INDIGST 2C03 Current Issues in Indigenous Studies: Selected Topics
- INDIGST 2D03 Traditional Indigenous Ecological Knowledge
- INDIGST 2F03 Residential Schools in Canada: History and Impact
- INDIGST 2G03 Indigenous Perspectives on Peace and Conflict
- INDIGST 2H03 Indigenous Celebrity
- INDIGST 2J03 Indigenous Experiential Education
- INDIGST 2K03 Indigenous Futurisms & Wonderworks
- INDIGST 2U03 Indigenous Textiles and Design

#### 6 units

- INDIGST 2M03 Indigenous Research Methods and Ethics
- INDIGST 2MM3 Indigenous Ways of Knowing: Theory

#### (See Note 1)

#### 6 units from

- INDIGST 3D03 Contemporary Native Literature in Canada
- INDIGST 3E03 Contemporary Native Literature in the United States
- INDIGST 3EE3 Indigenous Representations in Film
- INDIGST 3G03 Indigenous Creative Arts and Drama: Selected Topics
- INDIGST 3H03 Indigenous Medicine I Philosophy
- INDIGST 3HH3 Indigenous Medicine II Practical
- INDIGST 3J03 Government and Politics of Indigenous People
- INDIGST 3K03 Indigenous Human Rights

Page 5 of 14

- INDIGST 3L03 Indigenous Independent Study
- INDIGST 3N03 Indigenous Women: Land, Rights, and Politics
- INDIGST 3P03 Haudenosaunee Health, Diet and Traditional Botany
- INDIGST 3Q03 Histories of Indigenous Sport and Recreation
- INDIGST 3R03 Ogweho:weh Experiential Land-Based Learning
- INDIGST 3S03 Other-than-human Worlds and Relations

#### 9 units from

Level II or III Indigenous Studies or the Course List

#### 6 units from

- INDIGST 4A03 Storytelling and Environmental Conservation
- INDIGST 4B03 Indigenous Literary Governance & Resistance
- INDIGST 4D03 Indigenous Critical Theory and Inquiry
- INDIGST 4HH3 Indigenous Health and Interdisciplinary Approaches
- INDIGST 4L03 Indigenous Community Research Experience
- INDIGST 4T06 A/B Honours Thesis
- INDIGST 4SH3
- INDIGST 4RI3 Colonialism and Resistance in Representations of Indigenous Womanhood
- SOCWORK 4I03
- SOCWORK 4QQ3 Indigenizing Social Work Practice Approaches
- SOCIOL 4RR3 Indigenous Peoples and Canada

#### 36 units

· courses specified for the other subject

#### 3 units from

- CAYUGA 1Z03 Introduction to Cayuga Language and Culture
- INUKTUT 1Z03 Introduction to Inuit Language and Culture
- MOHAWK 1Z03 Introduction to Mohawk Language and Culture
- OJIBWE 1Z03 Introduction to Ojibwe Language and Culture

(Note: If this requirement was completed in Level I, these units will be taken as electives.)

#### 0-3 units

- INDIGST 1A03 Introduction to Indigenous Studies
- INDIGST 1AA3 Introduction to Contemporary Indigenous Studies
- RECONCIL 1A03 Reconciling What? Indigenous Relations in Canada

If not completed in Level 1 (See Note 2)

#### 12-15 units

Electives

#### 1.2 Honours Indigenous Studies (B.A.)

#### Admission

Completion of any Level I program, with a Grade Point Average of at least 5.0 and an average of 5.0 in one of INDIGST 1A03, 1AA3 or RECONCIL 1A03. For continuation in the program, see *Minimum Requirements for Entering and Continuing in a Program Beyond Level I* in the Faculty of Social Sciences Academic Regulations.

Notes

Page 6 of 14

- Those students who completed INDIGST 2M06 A/B prior to September 2017 can use these 6-units towards the fulfillment of INDIGST 2M03 and INDIGST 2MM3. Those students who completed INDIGST 2AA3 prior to September 2016 may request approval of an additional 3-unit research methodology course, to use in fulfillment of this 6-unit research methodology requirement. Students are encouraged to consult the Director of the Indigenous Studies Program for approval of an alternate applicable course.
- Students who have completed only 3 units of level I Indigenous Studies will be required
  to complete 3 more units of Level I Indigenous Studies by the end of the following
  academic year.

#### Course List

- ANTHROP 2BB3 Ancient Mesoamerica: Aztecs to Zapotecs
- ANTHROP 3Y03 Indigenous Community Health and Well-Being
- CAYUGA 2Z03 Intermediate Cayuga
- CSCT 4RI3
- ENGLISH 3W03 Contemporary Native Literature in Canada
- ENGLISH 3X03 Contemporary Native Literature in the United States
- HISTORY 2T03 Survey of Canadian History, Beginnings to 1885
- HISTORY 2TT3 Survey of Canadian History, 1885 to the Present
- HISTORY 3CW3 Canada in a World of Empires, 1492-1919
- MOHAWK 2Z03 Intermediate Mohawk
- OJIBWE 2Z03 Intermediate Ojibwe
- PEACEST 2C03 Peace and Popular Culture
- PEACEST 3B03 Peace-Building and Health Initiatives
- PEACEST 3W03 Contemporary Native Literature in Canada
- PHILOS 3L03 Environmental Philosophy
- POLSCI 2F03 Politics, Power and Influence in Canada
- POLSCI 3C03 Government and Politics of Indigenous People
- POLSCI 3F03
- RELIGST 2W03
- SOCIOL 4RR3 Indigenous Peoples and Canada
- SOCWORK 3103 Social Work and Indigenous Peoples
- SOCWORK 4QQ3 Indigenizing Social Work Practice Approaches
- SOCWORK 3Q03
- SOCWORK 4I03

#### Requirements

120 units total (Level I to IV), of which 48 units may be Level I 30 units from

• Level I completed prior to admission to the program (See Admission above.)

#### 9 units from

- INDIGST 2A03 Indigenous Peoples' Spirituality
- INDIGST 2B03 History of Indigenous Peoples' Sovereignty
- INDIGST 2BB3 Contemporary Indigenous Knowledge and Societies
- INDIGST 2C03 Current Issues in Indigenous Studies: Selected Topics
- INDIGST 2D03 Traditional Indigenous Ecological Knowledge
- INDIGST 2F03 Residential Schools in Canada: History and Impact
- INDIGST 2G03 Indigenous Perspectives on Peace and Conflict
- INDIGST 2H03 Indigenous Celebrity
- INDIGST 2J03 Indigenous Experiential Education
- INDIGST 2K03 Indigenous Futurisms & Wonderworks
- INDIGST 2U03 Indigenous Textiles and Design

6 units

Page **7** of **14** 

- INDIGST 2M03 Indigenous Research Methods and Ethics
- INDIGST 2MM3 Indigenous Ways of Knowing: Theory

#### (See Note 1)

#### 9 units from

- INDIGST 3C03 Study of Iroquois First Nations in Contemporary Times
- INDIGST 3D03 Contemporary Native Literature in Canada
- INDIGST 3E03 Contemporary Native Literature in the United States
- INDIGST 3EE3 Indigenous Representations in Film
- INDIGST 3G03 Indigenous Creative Arts and Drama: Selected Topics
- INDIGST 3H03 Indigenous Medicine I Philosophy
- INDIGST 3HH3 Indigenous Medicine II Practical
- INDIGST 3J03 Government and Politics of Indigenous People
- INDIGST 3K03 Indigenous Human Rights
- INDIGST 3L03 Indigenous Independent Study
- INDIGST 3N03 Indigenous Women: Land, Rights, and Politics
- INDIGST 3P03 Haudenosaunee Health, Diet and Traditional Botany
- INDIGST 3Q03 Histories of Indigenous Sport and Recreation
- INDIGST 3R03 Ogweho:weh Experiential Land-Based Learning
- INDIGST 3S03 Other-than-human Worlds and Relations

#### 15 units from

Level II or III Indigenous Studies or the Course List

#### 12 units from

- INDIGST 4A03 Storytelling and Environmental Conservation
- INDIGST 4B03 Indigenous Literary Governance & Resistance
- INDIGST 4D03 Indigenous Critical Theory and Inquiry
- INDIGST 4HH3 Indigenous Health and Interdisciplinary Approaches
- INDIGST 4L03 Indigenous Community Research Experience
- INDIGST 4T06 A/B Honours Thesis
- INDIGST 4SH3
- INDIGST 4RI3 Colonialism and Resistance in Representations of Indigenous Womanhood
- SOCIOL 4RR3 Indigenous Peoples and Canada
- SOCWORK 4103

#### 3 units from

- CAYUGA 1Z03 Introduction to Cayuga Language and Culture
- INUKTUT 1Z03 Introduction to Inuit Language and Culture
- MOHAWK 1Z03 Introduction to Mohawk Language and Culture
- OJIBWE 1Z03 Introduction to Ojibwe Language and Culture

(Note: If this requirement was completed in Level I, these units will be taken as electives.)

#### 0-3 units

- INDIGST 1A03 Introduction to Indigenous Studies
- INDIGST 1AA3 Introduction to Contemporary Indigenous Studies
- RECONCIL 1A03 Reconciling What? Indigenous Relations in Canada

If not completed in Level 1 (See Note 2)

#### 33-36 units

Electives

Page 8 of 14

#### 2.0 REVISIONS TO EXISTING COURSES:

## **2.1 INDIGST 1AA3 – Introduction to Contemporary Indigenous Studies** 3 unit(s)

This course will explore the relationship between Indigenous peoples and mainstream society in the 20th century with regard to governmental policy, land claims, economic development, and self-determination.

Lectures and seminars (three hours); one term

Cross-list(s): ARTSSCI 1CC3

#### 2.2 INDIGST 2MM3 –Indigenous Ways of Knowing: Theory

3 unit(s)

This course will explore Indigenous ways of knowing as they relate to Indigenous cosmologies and worldviews. A range of written text and oral tradition will be introduced as foundational aspects of Indigenous knowledges. Interdisciplinary approaches based on the work of Indigenous scholars redefining the field of Indigenous Studies will also be examined.

3 hours; lecture and seminar

Prerequisite(s): INDIGST 1A03, 1AA3 or RECONCIL 1A03, or ARTSSCI 1C03, or

permission of the Instructor

Antirequisite(s): INDIGST 2AA3 and INDIGST 2M06 A/B

Cross-list(s): ARTSSCI 1CC3

**Justification**: Currently ARTSSCI 1CC3 is cross-listed with a Level II Indigenous Studies course. The Arts & Science Program and the Indigenous Studies Program agree that the revised cross-listing of ARTSSCI 1CC3 with a Level I Indigenous Studies course is more appropriate.

\*\*\*\*\*

#### **POLITICAL SCIENCE**

#### 1.0 REVISIONS TO EXISTING PROGRAMS:

## 1.1 Honours Political Science Specialization in Public Law and Judicial Studies (B.A.)

Admission

Enrollment in this program is limited and possession of the published minimum requirements does not guarantee admission. Selection is based on academic achievement. Completion on any Level I program with a Grade Point average of at least a 5.0 including a grade of C or greater in one of POLSCI 1AA3 or 1AB3 (or 1G06 A/B) (See *Note 5* below). For continuation in

Page 9 of 14

the program, see *Minimum Requirements for Entering and Continuing in a Program Beyond Level I* in the *Faculty of Social Sciences Academic Regulations*.

#### **Notes**

- Students should be alerted to those Levels II and III courses that are required to qualify for a number of Level IV courses. Students who wish to enter courses but who lack the necessary prerequisites must obtain the permission of the instructor.
- 2. POLSCI 2NN3 and 3NN3 or 3N06 A/B and POLSCI 2006 A/B are required for students enrolled in Honours Political Science programs and they are recommended for students in the B.A. program.
- Students may take a maximum of 12 units of Level IV Political Science. Additional units of Level IV Political Science may not be used as electives.
- 4. Students who have completed only 3 units of level I Political Science will be required to complete 3 more units of Level I Political Science by the end of the following academic year.
- Completion of POLSCI 1AB3 by the end of Level I is strongly recommend in order for students to meet the prerequisite for POLSCI 2NN3.

#### Requirements

120 units total (Levels I to IV), of which 48 units may be Level I

#### 30 units

from

 the Level I program completed prior to admission to the program. (See Admission above.)

#### 9 units

- POLSCI 2006 A/B Political Theory
- POLSCI 2C03 Force and Fear, Crime and Punishment

#### 3 units

- POLSCI 2D03 Canadian Democracy
   or
- POLSCI 2M03 Governance, Representation, and Participation in Democracies

#### 6 units

- POLSCI 3CL3 Constitutional and Public Law in Canada
- POLSCI 3RF3 The Charter of Rights and Freedoms or
- POLSCI 3NN6 A/B

#### 18 units

from the Public Law and Judicial Studies Course List

#### 6 units

• Level IV Political Science (See Note 1 above.)

#### 6 units

- POLSCI 4JS3 Judicial Studies
- POLSCI 4LC3 Research on Law and Courts

6 units

Page 10 of 14

- POLSCI 2NN3 Politics by Design and
- POLSCI 3NN3 Statistical Analysis of Primary Data or
- POLSCI 3N06 A/B

#### 0-3 units

- POLSCI 1AA3 Government, Politics, and Power
- POLSCI 1AB3 Politics and Power in a Globalizing World

If not completed in Level 1 (See Note 4)

#### 33-36 units

 Electives, of which no more than 6 12 units may be from Political Science (the maximum Political Science courses to be taken is 60 66 units)

Public Law and Judicial Studies Course List

- LABRST 3C03 Labour and Employment Law
- POLSCI 3C03 Government and Politics of Indigenous People
- POLSCI 3CC3 Political Authority: 20th-Century Political Theory
- POLSCI 3G03 Ethnicity and Multiculturalism: Theory and Practice
- POLSCI 3GG3 Federalism
- POLSCI 3JR3 The Rule of Law and Legal and Judicial Reforms in the Developing World
- POLSCI 3K03 Migration and Citizenship: Canadian, Comparative and Global Perspectives
- POLSCI 3KA3 Indigenous Human Rights
- POLSCI 3KK3 Genocide: Sociological and Political Perspectives
- POLSCI 3LP3 Topics in Law and Policy
- POLSCI 3V03 Gender and Politics
- POLSCI 3VV3 Democratic Theory
- POLSCI 3Y03 Democratization and Human Rights

**Justification:** Additional courses added to the Public Law and Judicial Studies Course List to include new Level III Political Science courses. This will create more flexibility and provide more options for a student.

#### 2.0 NEW COURSES:

### 2.1 POLSCI 3JR3 - The Rule of Law and Legal and Judicial Reforms in the Developing World

3 unit(s)

This course offers an examination of legal systems throughout the developing world following World Bank, IMF, international aid agencies' push to homogenize the rule of law through legal and judicial reforms.

Delivery: Three hours (lectures); one term

**Prerequisite(s):** POLSCI 2XX3 or permission or the instructor

Course Capacity: 50

Page 11 of 14

**Justification** - This new undergraduate course will add/complement the Judicial Politics and Legal Studies Course List of the Department of Political Science, as well as the Department's emphasis on globalization processes, and the Comparative Politics Development area.

#### 2.2 POLSCI 3LP3 - Topics in Law and Policy

3 unit(s)

In-depth examination of a specific area or field of law and its intersection with politics and public policy at the domestic and/or international level. Specific topic to be chosen by the instructor.

Delivery: Three hours (lectures); one term

Prerequisite(s): Registration in Level III or above

Course Capacity: 60

Reserve Capacity: RC-POLSCIPLJS - 30

**Justification** - This new undergraduate course adds to the Judicial Politics and Legal Studies Courses List of the Department of Political Science and allows the Department to bring in experts and practitioners to offer class in currently under covered areas, such as environmental and international law, in response to student interest.

#### 3.0 REVISIONS TO DEPARTMENTAL NOTES:

#### **Fields of Study**

Fields of Study

Students are responsible for ensuring that course prerequisites are fulfilled.

- I. Canadian Politics
  - POLSCI 2C03, 2D03, 2F03, 2PF3, 2U03, 3BB3, 3C03, 3CL3, 3FF3, 3FG3, 3GG3, 3J03, 3JJ3, 3K03, 3NN6 A/B, 3RF3, 3Z03, 4CA3, 4CF3, 4JS3, 4JS6 A/B, 4LC3, 4O06 A/B, 4PO3, 4RR3, 4T06 A/B
- II. Comparative Politics
  POLSCI 2C03, 2M03, 2PF3, 2U03, 2US3, 2XX3, 3BB3, 3D03, 3EE3, 3F03, 3G03, 3GG3, 3H03, 3I03, 3JR3, 3K03, 3KK3, 3LC3, 3LL3, 3U03, 3V03, 3VV3, 3Y03, 4A03, 4AA6 A/B, 4D06 A/B, 4G06 A/B, 4KC3, 4LA3, 4PA3, 4PO3, 4Q06 A/B, 4R06, 4RR3, 4SS3, 4UF3, 4YR3
- III. International Relations POLSCI 2H03, 2I03, 2J03, 2XX3, 3AA3, 3B03, 3E03, 3EE3, 3FF3, 3GC3, 3JR3, 3K03, 3KK3, 3LB3, 3P03, 3Q03, 3QQ3, 3X03, 3Y03, 4D06 A/B, 4DV3, 4GC3, 4GG3, 4HR3, 4KB3, 4KD3, 4KK3, 4LL3, 4NN3, 4PE3, 4PP3, 4QQ3, 4Y03, 4YR3
- IV. Political Theory
  POLSCI 2006 A/B, 3CC3, 3FR3, 3LA3, 3PB3, 3VV3, 4AA6, 4C06 A/B, 4DD3, 4E06 A/B, 4DV3, 4FF3, 4HH3, 4JJ3, 4KA3, 4OL3, 4Y03
- V. Public Policy POLSCI 2C03, 2U03 3B03, 3D03, 3E03, 3FF3, 3GC3, 3J03, 3LL3,

Page 12 of 14

3LP3, 3U03, 3Z03, 4CF3, 4G06 A/B, 4JS3, 4L03, 4LC3, 4O06 A/B, 4LC3, 4R06, 4RR3, 4SS3

The following courses while satisfying the requirements of the program are not specific to any field of study:

POLSCI 1AA3, 1AB3, 1G06 A/B, 2NN3, 2MN3, 3N06 A/B, 3NN3, 3PR3, 3UU3, 3WP3, 4Z06 A/B, 4ZZ3, 4ZZ6 A/B

Justification: Housekeeping to include the two new courses.

\*\*\*\*\*\*

#### **Faculty of Social Sciences**

#### 1.0 Changes to existing programs:

#### **Admission Requirements**

#### B. From Colleges of Applied Arts and Technology

#### **Economics**

- 1. Completion of a minimum of a two or three-year diploma
- 2. A minimum cumulative GPA of 80%.
- Successful completion of two Grade 12 Advanced Functions U, Grade 12 Calculus & Vectors U or Grade 12 Math of Data Management U courses.
- 4. Application will be reviewed for transfer credit.

#### **Health and Society**

- 1. Completion of a two or three-year diploma program.
- 2. A minimum cumulative GPA of 80%.
- 3. Application will be reviewed for transfer credit.

**Justification:** Addition of new copy to explain/introduce the new Level I programs in the Admissions section of the UG Calendar under the CAATS category.

#### 2.0 NEW COURSES:

#### 2.1 SOCSCI 1HS3 - Pathways into the Social Sciences

3 units

This course recognizes a set of specialized, cross-applicable and transferable skills acquired by students in their previous education that facilitate and enhance their transition into a Social Sciences program.

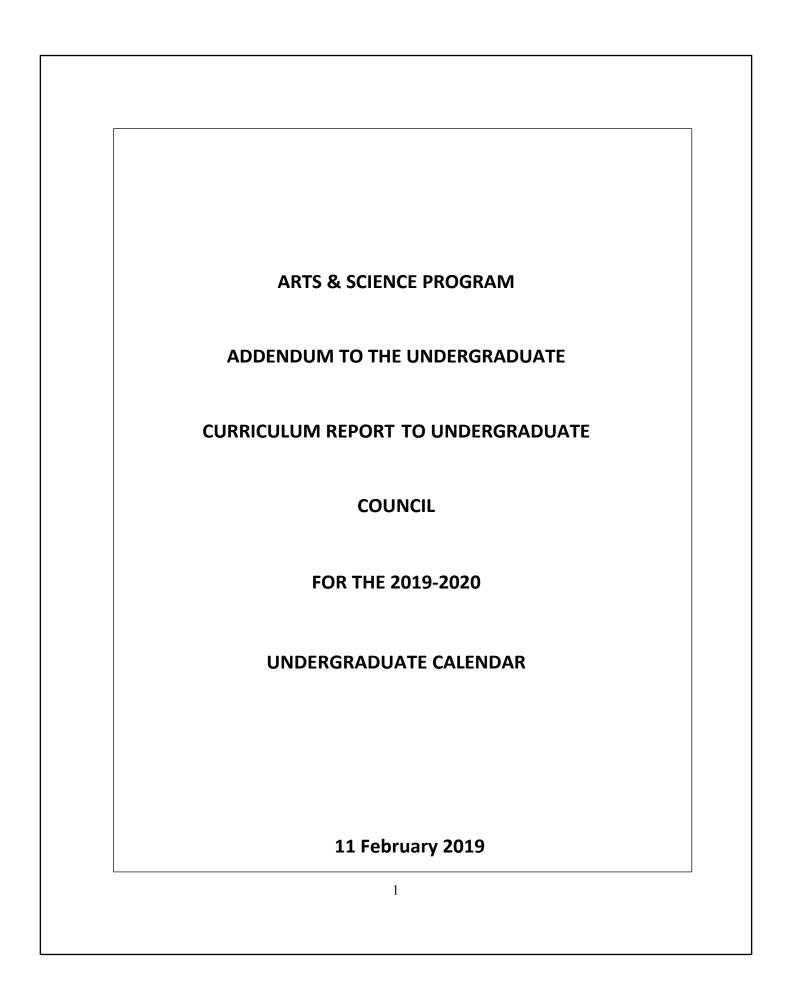
Page 13 of 14

Three hours; one term

**Prerequisite(s):** Completion of a SHSM program in Health and Wellness; Non-Profit; Justice, Community Safety and Emergency Services; or Business.

Rationale: This is a re-activation of a previously existing Social Sciences course that was offered as a high school enrichment course. This updated version will be used primarily for granting of advanced credit in recognition of high school coursework, experiences, and credentials completed through the Specialist High Skills Major (SHSM) program. In order to receive this advanced credit, students will need to submit their final high school transcript indicating completion of the SHSM and they will be required to submit a report/reflection on what they learned from completing the program and how their learning will serve them while enrolled in a Social Sciences program.

Page **14** of **14** 



#### **REPORT TO SENATE**

## ARTS & SCIENCE PROGRAM SUMMARY OF MAJOR CURRICULUM CHANGES FOR 2019-2020

This report highlights substantive changes being proposed. For a complete review of all changes, please refer to the January 2019 Arts & Science Program Addendum to the Undergraduate Council Report for changes to the 2019-2020 Undergraduate Calendar, found at <a href="https://tinyurl.com/y9cajlec">https://tinyurl.com/y9cajlec</a>

**NEW PROGRAMS:** 

N/A

**PROGRAM CLOSURES:** 

N/A

**MAJOR REVISIONS:** 

N/A

#### REPORT TO UNDERGRADUATE COUNCIL

## ARTS & SCIENCE PROGRAM SUMMARY OF CURRICULUM CHANGES FOR 2019-2020

This report highlights substantive changes being proposed. For a complete review of all changes, please refer to the January 2019 Arts & Science Program Addendum to the Undergraduate Council Report for changes to the 2019-2020 Undergraduate Calendar, found at <a href="https://tinyurl.com/y9cajlec">https://tinyurl.com/y9cajlec</a>

#### **ARTS & SCIENCE PROGRAM**

• Revisions to two course listings

## ARTS & SCIENCE PROGRAM 2019-2020 CURRICULUM REVISIONS

#### **REVISED COURSES**

ARTSSCI 1CC3 - Indigenous Ways of Knowing: Theory Contemporary Indigenous Studies 3 unit(s)

This course will explore Indigenous ways of knowing as they relate to Indigenous cosmologies and worldviews. A range of written text and oral tradition will be introduced as foundational aspects of Indigenous knowledges. Interdisciplinary approaches based on the work of Indigenous scholars redefining the field of Indigenous Studies will also be examined.

This course will explore the relationship between Indigenous peoples and mainstream society in the 20th century with regard to governmental policy, land claims, economic development, and self-determination. Three hours; one term

Prerequisite(s): One of ARTSSCI 1C03, INDIGST 1A03, 1AA3, RECONCIL 1A03

Antirequisite(s): INDIGST 2AA3 and INDIGST 2M06 A/B

Cross-list(s): INDIGST 2MM3 INDIGST 1AA3

Rationale: Currently ARTSSCI 1CC3 is cross-listed with a Level II Indigenous Studies course. The Arts & Science Program and the Indigenous Studies Program agree that the revised cross-listing of ARTSSCI 1CC3 with a Level I Indigenous Studies course is more appropriate.

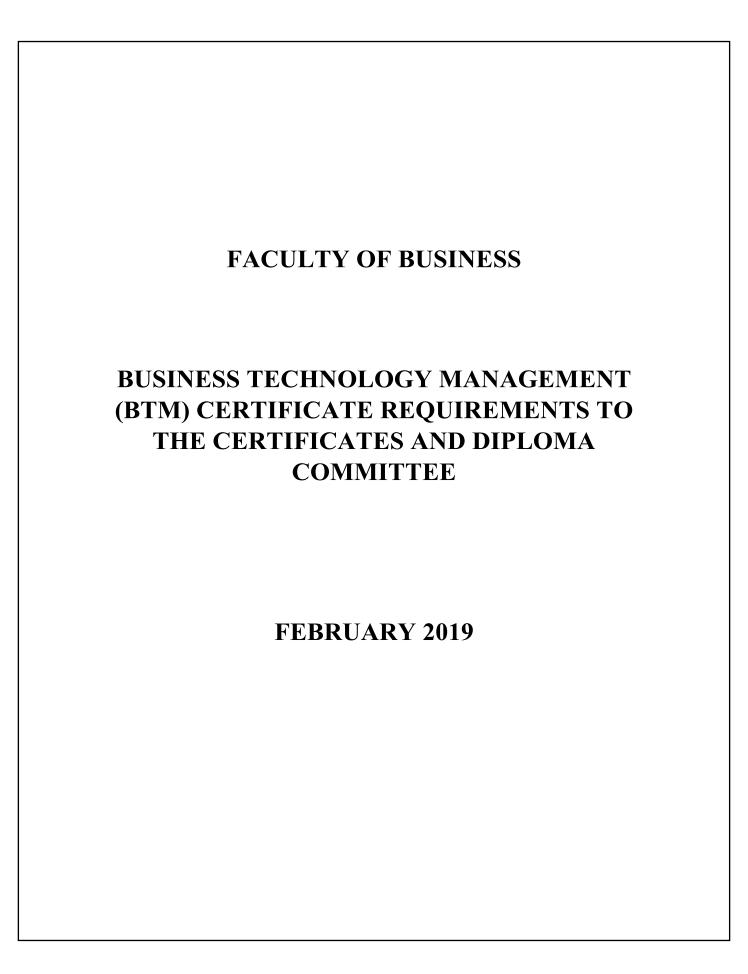
#### ARTSSCI 3BC3 - Technology and Society III

3 unit(s

An inquiry on technological change and its effects on our communities, in both historical and future contexts, this course focuses on the enhancement of the livability of our communities through the consideration of environmental and social sustainability principles. Design aspects and use of systems-based tools for decision-making will be examined.

This course explores the current explosion of publically available data and the manipulation of this data as both a positive and a negative societal development. Our focus of inquiry will be on the use of spatial data and cartography as a tool to inform society through the visualization of complex data.

Prerequisite(s): Registration in Level III or above of the Arts & Science Program.



#### **Certificate in Business Technology Management (BTM)**

#### Notes

- 1. The courses comprising the BTM certificate will count as elective courses for students enrolled in the an Honours Bachelor of Commerce (B.Com.) program.
- 2. SFWRTECH 3IT3 and SFWRTECH 3PR3 are anti-requisites.

#### Admission

Enrolment in the an Honours Bachelor of Commerce (B.Com.) program is required for admission to the certificate.

#### Requirements

27 units total

#### 21 units

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 3KD3 Database Design Management & Applications
- COMMERCE 3KE3 Management of Enterprise Data Analytics
- COMMERCE 4KF3 Project Management
- COMMERCE 4KG3 Data Mining and Business Intelligence
- COMMERCE 4KH3 Strategies for Electronic and Mobile Business
- COMMERCE 4KI3 Business Process Management
- SFWR TECH 3OS3 Operating Systems
- One of:
  - SFWR TECH 3IT3 Networking Principles
  - \* SFWR TECH 3PR3 Procedural and Object Oriented Programming Concepts

#### 6 units

- COMMERCE 3KA3 Systems Analysis & Design
- COMMERCE 4KI3 Business Process Management
- COMMERCE 4BK3 Strategic Management of Technology
- COMMERCE 4MH3 Electronic Marketing
- SFWR TECH 3CS3 Computer Security
- SFWR TECH 3IT3 Networking Principles
- SFWR TECH 3OS3 Operating Systems
- SFWR TECH 3PR3 Procedural and Object-Oriented Programming Concepts
- SFWR TECH 3RQ3 Software Requirements and Specification
- SFWR TECH 4SD3 Software Design

**Rationale:** On July 3<sup>rd</sup>, 2018, the IS Area submitted the necessary paperwork to have the BTM certificate at the DeGroote School of Business officially "BTM Recognized" by BTM Forum. Upon review by BTM's accreditation committee, various recommendations were suggested in order to make the requirements of the certificate worthy of BTM Recognition status. The changes described below summarize the changes

requested by BTM Forum and the collective agreed-upon response from the IS Area. Please note that all faculty members within the IS Area were supportive of these changes to the BTM certificate.

The BTM review team suggested we make Comm 3KA3 and Comm 4KI3 mandatory courses for the BTM certificate. The IS Area was in 100% agreement with this recommendation and we stated in our response to the BTM review team that we would revise the requirements of the certificate accordingly. However, to accommodate this change, the IS Area has agreed to remove SFWR TECH 3OS3 as a mandatory course. This is to keep the number courses for the certificate at nine to keep the number of required courses for the certificate at a reasonable number. The IS Area also agreed to removing Commerce 4BK3 and Commerce 4MH3 as elective courses in order to ensure that students perusing the BTM certificate would pursue more technical courses.

The above changes to the certificate were agreed upon by the IS Area and submitted to BTM Forum for their review of our application to get the BTM certificate officially "BTM Recognized" in November. The BTM Forum will review this submission sometime in January, but it is expected to pass, based on email correspondence with BTM executives, since the only surmountable issue was in regard to making 3KA3 and 4KI3 part of the mandatory certificate requirements.

## FACULTY OF HUMANITIES REVISIONS FOR 2019-20

## for submission to UGC Certificates and Diplomas Committee

#### 1.1 Concurrent Certificate in Leadership & Cross-Cultural Literacy

**Certificate Requirements** 

Any student in an undergraduate degree program at McMaster may declare the certificate, at the time of graduation, and upon completion of the following courses.

Requirements

15 units total

3 units

from

#### **Ethics Requirement**

- PHILOS 2D03 Bioethics
- PHILOS 2N03 Business Ethics
- PHILOS 2TT3 Ethical Issues in Communication
- PHILOS 2YY3 Ethics

#### 12 units

#### **Leadership & Cross-Cultural Literacy Requirement**

- HUMAN 3CM3 Leadership: Cross-Cultural Mentoring Lab
- HUMAN 3LM3 Foundations of Leadership
- HUMAN 4CM3 Cross-cultural Mentoring and Coaching Practicum
- HUMAN 4LC3 Leadership Capstone: Theory and Practice
- HUMAN 4RM3 Leadership: Relationship Management

**Rationale:** HUMAN 4CM3 is being offered on Dean's letter during Winter 2019. Going forward, it is intended that this course provide an additional option for students in this certificate.

#### 1.2 Concurrent Ethics and Policy for Technological Innovation Certificate (EPTIC)

#### **Certificate Requirements**

Any student in an undergraduate program at McMaster may declare the certificate at the time of graduation and upon satisfaction of each of the following requirements:

- 1. The student must be accepted by the Ethics and Policy for Technological Innovation Certificate Committee (the EPTIC Selection Committee). The EPTIC Selection Committee will consider supplemental applications soon after the end of Winter term of each academic year, but only from students who are enrolled in an undergraduate program at McMaster University and who have completed PHILOS 2D03 or 2YY3 and either (or both) PHILOS 2S03 or PHILOS 2G03. The EPTIC Selection Committee's selections will be made on the basis of the student's cumulative grades and answers to the supplemental application questions.
- 2. The student must complete 15 units in accordance with the following requirements.

#### Requirements

15 units total

3 units

from

- PHILOS 2D03 Bioethics
- PHILOS 2YY3 Ethics

#### 3 units

from

- PHILOS 2G03 Social and Political Issues
- PHILOS 2S03 History of Political Philosophy

#### 3 units

from

- PHILOS 2N03 Business Ethics
- PHILOS 2TT3 Ethical Issues in Communication
- PHILOS 3C03 Advanced Bioethics
- PHILOS 3CC3 Advanced Ethics

#### 3 units

from

- PHILOS 3103 Philosophy and Feminism
- PHILOS 3L03 Environmental Philosophy
- PHILOS 3N03 Political Philosophy
- PHILOS 3Q03 Philosophy of Law

#### 3 units

PHILOS 4V03 - Multidisciplinary Workshop in the Ethics and Policy of Technological Innovation

#### Notes

- 1. Students accepted and enrolled in the Justice, Political Philosophy, and Law Honours BA Program are not eligible to apply for the Certificate.
- 2. Any student seeking a Philosophy Honours BA may satisfy no more than 2 courses (6 units) of the Philosophy Honours BA Program requirements with courses that the student has also designated as counting toward the satisfaction of the Certificate's requirements.
- 3. Students who declare the certificate are precluded from declaring a philosophy minor.
- 4. Transfer credits will not be accepted in lieu of PHILOS 4V03. Students accepted into the certificate program are free to request transfer credit in lieu of any other certificate course requirement. The student may submit such a request to the Selection Committee (via philadm@mcmaster.ca) at any time.
- 5. Note that selection by the selection committee is distinct from the successful declaration of the certificate, and a student's selection does not imply that the candidate has satisfied all certificate requirements. It is the student's responsibility to make sure that at the time of graduation, all requirements of the certificate as enumerated above have been fulfilled.
- 6. Integrated Business and Humanities students may substitute IBH 2BD3 for PHILOS 2D03.

**Rationale:** Students in the IBH program will have completed the appropriate anti-requisite course IBH 2BD3. Accepting this course in lieu of PHILOS 2D03 will allow an appropriate pathway for these program students to complete the concurrent EPTIC.



A. Department & Program Information (Complete all fields):			
Department:	Centre for Continuing Education		
Program Name:	Human Resources Management Program		
Name of Representative:	Nathalie Vallée, Program Manager		
Nature of Submission:	Course revision		
Effective Date:	As soon as approved		
Submission Date:	February 12 <sup>th</sup> , 2019		
B. Course Revision #1			
Current Course Title:	Labour Relations		
Is this course currently offered? Yes Existing Course Code: HRM 899 (Blended and Online sections)			
Course Unit Value:	3 units		
List Course Pre-requisite N/A	es (if applicable):		
Revised Course Descrip	This course provides the student with an overall understanding of the importance of partnership between employers and unions in labour relations. This course explores: the historical challenges and foundational interests of labour unions within the Canadian context; the social and economic impact unions have had in workplaces and in our society; current trends and contextual factors impacting labour relations; the legal framework governing labour and employment in Ontario, including an overview of the Ontario Labour Relations Act, the Employment Standards Act, 2000, the Human Rights Code, and other relevant legislation; the processes for establishing a union and engaging in collective bargaining; the critical importance of effective workplace investigations; and the practical application of effective		



	Course Submission			
Revised Course Learning Outcomes:	partnership between the employer and union in administering the collective agreement, handling grievances, negotiating agreements, and resolving disputes.			
	<ul> <li>Understand employer and union responsibilities regarding human rights issues, and the impact of such responsibilities on labour relations.</li> <li>Identify the aspects of an effective workplace investigation and understand its importance and how it supports processes associated with discipline and discharge.</li> <li>Apply an interest-based approach to enable effective partnership between the employer and union in administering the collective agreement, handling grievances, negotiating agreements, and resolving disputes.</li> </ul>			
Rationale for Revision:				
Upon development of the	e course with the Subject Matter Expert, the course description and ed to be revised to reflect the content and assessment changes made			
B. Course Revision #2				
Current Course Title:	Training and Development			
Is this course currently offered? Yes Existing Course Code: HRM 902 (Blended and Online sections)				
Course Unit Value:	3 units			

2



	3333	
List Course Pre-requisites (if	applicable):	
N/A		
Course Description:	Note: This course description was not revised.	
	The primary objective of this course is to examine the functional roles of training and development within the organization as well as analyzing and understanding the critical importance of planning within an ISD (instructional systems design) model. Topics to be discussed include: the training and development process, the psychology of learning and motivation, needs assessment and analysis; training design; cost and benefits of training; transfer of training and evaluation; training trends and best practices.	
Revised Course Learning Outcomes:	By the end of this course, students will be able to:	
	<ul> <li>Analyze the critical role that training and development plays in helping organizations reach strategic organizational objectives and goals.</li> </ul>	
	<ul> <li>Describe the psychology of learning and motivation theories and their importance in the development and implementation of training programs.</li> </ul>	
	<ul> <li>Explain the benefits and financial implications of implementing training and development programs and initiatives.</li> </ul>	
	<ul> <li>Apply the component(s) of the Instructional Systems         Design (ISD) Model to real-life situations in the         workplace.</li> </ul>	
	<ul> <li>Explain how training and development methods are changing in response to environmental impacts and emerging trends.</li> </ul>	
	<ul> <li>Demonstrate the skills, attitudes, and behaviours required to work and collaborate with people and develop personal management skills.</li> </ul>	



#### Rationale for Revision:

Upon development of the course with the Subject Matter Expert, the learning outcomes needed to be revised to reflect the content and assessment changes made to the course.

B. Course Revision #3					
Current Course Title:	Organizational Behaviour				
Is this course currently offered? Yes Existing Course Code: HRM 821 (Blended and Online sections)					
Course Unit Value:	3 units				
List Course Pre-requisites (if applicable): N/A					
Revised Course Description:		This course provides an overview of human behaviour in the workplace and its influence on organizational effectiveness. Topics include personality, perception, motivation, decision-making, team dynamics, communication, organizational politics, conflict, leadership, organizational design, and change.			
Revised Course Learning Outcomes:		<ul> <li>By the end of this course, students will be able to:</li> <li>Analyze how individual and group behaviours and traits affects organizational efficiency and effectiveness.</li> <li>Identify various theories of personality, perception,</li> </ul>			
		<ul> <li>motivation, and emotions and their impact on individual behaviour and organizational effectiveness.</li> <li>Describe organizational communication processes</li> </ul>			
		and the strategies used to resolve conflicts and organizational politics.			
		<ul> <li>Assess the effectiveness and efficiency of individual and group decision-making processes.</li> </ul>			



	<ul> <li>Explain how leadership and management styles influence organizational culture.</li> </ul>
	<ul> <li>Analyze how the design of organizational structure impacts employees.</li> </ul>
	<ul> <li>Explain the critical role of managing change to ensure organizational success.</li> </ul>
	<ul> <li>Demonstrate the skills, attitudes, and behaviours required to work and collaborate with people and develop personal management skills.</li> </ul>
	<ul> <li>Apply the theoretical concepts/frameworks of organizational behaviour to real-life situations in the workplace.</li> </ul>
Rationale for Revision:	
•	e with the Subject Matter Expert, the course description and e revised to reflect the content and assessment changes made

#### B. Course Revision #4

Old Course Title:	Recruitment and Selection		
New Course Title:	alent Acquisition		
Is this course currently offered? Yes			
Existing Course Code: HRM 897 (Blended and Online sections)			
Course Unit Value:	3 units		
List Course Pre-requisites (if applicable): N/A			
Revised Course Descript	This course will introduce students to the world of talent acquisition, key components and methodologies of recruitment and selection, and how talent acquisition can be a strategic enabler of organizational success. The course will focus on recruitment marketing, candidate sourcing and selection, job analysis, candidate screening, interviewing and		

5



	Course Submission		
	decision-making.		
Revised Course Learning	By the end of this course, students should be able to:		
Outcomes:	<ul> <li>Apply the concepts of talent acquisition to real-life situations in the workplace.</li> </ul>		
	<ul> <li>Discuss the legal, social and economic factors that impact talent acquisition in Canada.</li> </ul>		
	<ul> <li>Evaluate the validity and reliability of recruitment and selection practices.</li> </ul>		
	<ul> <li>Detail the importance of job and performance analysis in talent acquisition.</li> </ul>		
	<ul> <li>Detail an effective recruitment strategy, candidate sourcing methods, and recruitment activities that support diversity and equal opportunity mandates.</li> </ul>		
	<ul> <li>Outline the screening, testing and interviewing methods to effectively assess candidates.</li> </ul>		
	<ul> <li>Develop a decision-making process for selecting a successful candidate.</li> </ul>		
	<ul> <li>Develop consultation and collaboration skills while working effectively with others.</li> </ul>		

#### Rationale for Revision:

Upon development of the course with the Subject Matter Expert, the course description and learning outcomes needed to be revised to reflect the content and assessment changes made to the course. We also revised the course title to match current trends in Human Resources.



DATE:

January 17th, 2019

TO:

Certificate and Diploma Committee, Undergraduate Council and Senate

FROM:

Sue McCracken, Associate Dean, Academic, DeGroote School of

Business

SUBJECT:

Evaluation of Revisions Made to the Human Resources Management

Program Proposal for the Centre for Continuing Education (CCE)

I have reviewed the proposal for the review of the Human Resources Management program to be offered through the Centre for Continuing Education (CCE). I have examined the proposed revisions for the course descriptions and learning outcomes linked to the rationale for their changes. My examination of the revisions concurs that the proposed courses are still of the intellectual rigour comparable to that found in undergraduate degree courses and that aligning with industry trends and professional associations will be beneficial to the program and the students. Students taking the courses will continue to meet the minimum requirements set out in the Policy on Certificates and Diplomas for Undergraduate Council.

Since the courses and diploma meet all these criteria as set out in the Policy on Certificates and Diplomas for Undergraduate Council, I support the submission of these revisions to the Committees for approval.

Sincerely,

Sue McCracken

Associate Dean (Academic) DeGroote School of Business

Fuser M Clicken

Tel: 905-525-9140 ext 23993 smccrac@mcmaster.ca



DATE: 16 January 2019

TO: Susan McCracken, DeGroote School of Business FROM: Aaron Schat, Human Resources & Management Area

SUBJECT: Evaluation of HRM Course Revisions, Proposal for the Centre for

Continuing Education (CCE)

I have reviewed the proposal for the course revision of the four HRM courses (Talent Acquision, Organizational Behaviour, Labour Relations and Talent &Development) offered through the Centre for Continuing Education (CCE). I have examined the submission document and it is my finding that the proposed changes to the courses in the Human Resources Management Program are appropriate, and the course continues to meet the standards necessary for an academic program with courses of 3.0 units. Students taking the course will continue to meet the minimum requirements set out in the Policy on Certificates and Diplomas for Undergraduate Council.

In conclusion, the revised course will meet all criteria as set out in the Policy on Diplomas & Certificates for Undergraduate Council, I am in support of the proposed changes to HRM 821, HRM 899, HRM 902 and HRM 897.

Sincerely,

Aaron Schat Chair, Human Resources & Management Area DeGroote School of Business

Phone: (905) 525-9149, ext 23946 Email: schata@mcmaster.ca

Cc: Susan McCracken, Associate Dean, DeGroote School of Business

### McMaster University: Sessional Dates 2020-2021

#### Fall and Winter Terms 2020-2021

	<b>Fall Term</b> (61 days)	Winter Term (63 days)	Courses Spanning both Terms (124 days)
Enrolment begins		To be announced	
Classes begin	Tuesday, September 8	Wednesday, January 6	Tuesday, September 8
Last day for enrolment and adding or dropping courses	Wednesday, September 16	Thursday, January 14	Wednesday, September 16
Mid-Term Recess(es)	Monday, October 12 to Sunday, October 18	Monday, February 15 to Sunday, February 21	Monday, October 12 to Sunday, October 18 and, Monday, February 15 to Sunday, February 21
Last day for withdrawing from courses without failure by default	Friday, November 13	Friday, March 12	Friday, March 12
Good Friday: No classes or examinations	-	Friday, April 2	Friday, April 2
Test and Examination Restriction	Wednesday, December 2 to Tuesday, December 8	Tuesday, April 6 to Tuesday, April 13	Tuesday, April 6 to Tuesday, April 13
Classes end	Tuesday, December 8	Thursday, April 8	Thursday, April 8
Mid-Term Tests Level (I)	-		Wednesday, December 9 to Tuesday, December 22
Final Examinations	Wednesday, December 9 to Tuesday, December 22	Wednesday, April 14 to Thursday, April 29	Wednesday, April 14 to Thursday, April 29
Deferred examinations	Tuesday, February 16 to Friday, February 19	Monday June 21 to Thursday June 24	Monday June 21 to Thursday June 24

# 2021 Spring/Summer Term

	Spring Session (34 days)	Summer Session (33 days)	<b>Full-Term Courses</b> (67 days)
Classes begin	Monday, May 3	Monday, June 21	Monday, May 3
Last day for enrolment and adding or dropping courses	Monday, May 10	Monday, June 28	Monday, May 10
Victoria Day: No classes	Monday, May 24		Monday, May 24
Canada Day: No classes		Thursday, July 1	Thursday, July 1
Last day withdrawing from courses without failure by default	Wednesday, June 2	Wednesday, July 21	Wednesday, July 21
Civic Holiday: No classes		Monday, August 2	Monday, August 2
Classes end	Friday, June 18	Friday, August 6	Friday, August 6
Final Examinations	As a	arranged by instructor in class time	е
Deferred Examinations	Tuesday	October 12 to Friday, October 15,	2021





# **NEW PROGRAM PROPOSAL**

**Artificial Intelligence certificate of completion** 

(courses + project)

Sesha Srinivasan

**December 19, 2018** 

# **TABLE OF CONTENTS**

1	PRO	OGRAM	3
	1.1	PROGRAM DESCRIPTION	3
	1.2	PROPOSAL PREPARATION AND CONSULTATION PROCESS	20
	1.3	CONSISTENCY WITH MCMASTER'S MISSION AND ACADEMIC PLAN	20
	1.4	PROGRAM LEARNING OUTCOMES	20
	1.5	CONSISTENCY WITH DEGREE LEVEL EXPECTATIONS	21
	1.6	DEMAND FOR the PROGRAM	21
	Evide	nce of Societal/Labour Market Need	21
	1.7	DEGREE NOMENCLATURE	24
2	AD	MISSION & ENROLMENT	25
	2.1	ADMISSION REQUIREMENTS	25
	Applic	cants with a 4 year undergraduate degree in engineering or science, as well as applicants	with
	an ad	vanced 3-year college diploma will be admitted to the Certificate	25
	2.2	ENROLMENT PLANNING AND ALLOCATIONS	25
	2.3	ALTERNATIVE REQUIREMENTS	
3	STR	RUCTURE	26
	3.1	ADMINISTRATIVE, GOVERNANCE AND COMMUNICATION	26
	3.2	STRUCTURE AND REGULATION	26
	3.3	GRADUATE PROGRAMS - PROGRAM LENGTH	
4	CUI	RRICULUM AND TEACHING	27
	4.1	PROGRAM CONTENT	27
	4.2	PROGRAM INNOVATION	27
	4.3	MODE(S) OF DELIVERY	28
	4.4	EXPERIENTIAL LEARNING	28
	4.5	ACCESSIBILITY	29
	4.6	RESEARCH REQUIREMENTS (IF APPLICABLE)	29
5	ASS	SESSMENT OF LEARNING	
	5.1	METHODS FOR ASSESSING STUDENTS	
	5.2	CURRICULUM MAP	
	5.3	DEMONSTRATING STUDENT ACHIEVEMENT	
6		OURCES	
		MINISTRATIVE, PHYSICAL AND FINANCIAL RESOURCES	
		RARY, TECHNOLOGY, AND LABORATORY RESOURCES	
		CULTY	
		UDENT FINANCIAL SUPPORT	
7		CULTY RESEARCH FUNDING – NOT APPLICABLE; THIS IS NOT A RESEACH PROGRAM ALITY AND OTHER INDICATORS	
7	7.1	ACADEMIC QUALITY OF THE PROGRAM	
	7.1 7.2	INTELLECTUAL QUALITY OF THE PROGRAM EXPERIENCE	
۰		ERENCES	
8	KER	LINELS	50

Updated: January 2019

## 1 PROGRAM

## 1.1 PROGRAM DESCRIPTION

The proposed certificate of completion combines professional development with technical competencies required for designing, programming, applying and integrating within systems, fundamental knowledge and techniques related to the deployment and use of artificial intelligence. This certificate of completion is part of the overall program on Digital Manufacturing and Industry 4.0 available throughout 2019 at the school.

The audience of the program is intended to be:

- 1. Primarily technologists and engineers who are working or want to work with Artificial Intelligence and, learning machines in industries including but not limited to manufacturing, petrochemical, and data.
- Later on, by extension, graduate students with no or little Artificial Intelligence background
  who want to acquire the necessary knowledge to prepare them for pursuing one of the
  related Masters of Engineering Degrees offered by the W Booth School of Engineering
  Practice and Technology.

# Background: Artificial Intelligence as part of a rich, organic, and complex ecosystem - Industry 4.0 or the fourth revolution of manufacturing and services

The following report is based on several sources, primarily from McKinsey & Company which highlights key findings for the successful implementation of Artificial Intelligence.

Few technological innovations have steered as much conversations, ideas, debates, uncertainties and doubts as the digitization of manufacturing or Industry 4.0 has, in the past few years. Full of promises and potentials, the concept still remains largely unclear and complex, which seems largely due to the lack of understanding, training, and willingness from organizations to embrace it. Indeed, according to several worldwide surveys, most major industries and services, still lack understanding, vision, direction and utilization of those tools and techniques, even though most of the technological innovations are known. The situation is even more drastic for SMEs which are simply left out of the revolution.

The essence of Industry 4.0 is the evolution of industries towards the development of interconnected devices, components and systems as shown in Figure 1. It can be summarized as the integration of cyber-physical systems inside and outside of an organization. It encompasses not only internal physical and cyber assets such as machinery, equipment, processes, and databases but also the integration of external components such as suppliers, supply chain and customers. Although, initial definitions were targeted at manufacturing industries, as shown in Figure 2, it has become more and more apparent that the ramifications of Industry 4.0 principles are spreading across multiple sectors.

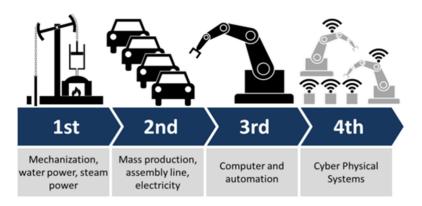


Figure 1: The fourth industrial revolution [1]

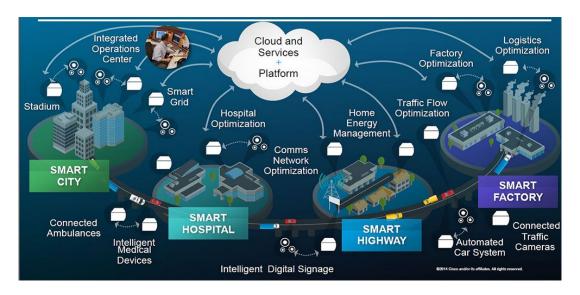


Figure 2: Industry 4.0 and interconnectivity across multiple sectors [2].

Interestingly, manufacturing seems to be lagging behind the service industries mostly due to the fact that the latter is more prone to frequent technological upgrades.

# Beyond Industry 4.0 hype: Five core principles for creating value at lean's next level

Based on experience working with clients on digital and Industry 4.0 transformations, McKinsey and Company have identified five principles that can help companies successfully convert Industry 4.0 solutions into real value and bottom-line impact [3].

1. As cost pressure across all industries continually increases, companies face the need to improve productivity by two to four percentage points every year. Our estimates, based on numerous studies, show that digitally enabled advancements are unleashing the potential to create value equivalent to efficiency improvements of 15 to 20 percent. This productivity leap will not come from the application of a single solution. To generate meaningful impact, companies will have to address all elements of profit and loss while also applying a broad range of solutions at scale.

For example, a reduction of total machine downtime by 30 to 50 percent-a feat possible with predictive maintenance or remote monitoring will greatly increase asset utilization. Labour efficiency is another area with high potential. Digital performance management combined with advanced robotics and automated guided vehicles can further automate manual work (for example, in picking and in-plant transportation) and has the potential to improve labour productivity by an additional 40 to 50 percent.

- Advanced analysis of granular data on machining processes, generated in real time, will be fundamental to identifying and addressing the underlying causes of process inefficiencies and problems with quality—faster and more effectively. Furthermore, forecasting processes that draw heavily on big data already can drastically reduce inventories and improve service levels today.
- 3. Industry 4.0 is a topic for the business, not just the IT department; IT enables Industry 4.0 but should not drive implementation. Companies tend to start by considering how to apply the new approaches to their IT systems. They should focus instead on how they will conduct their business in the future, thinking through changes from a value-chain and business-case standpoint.

For example, one global sportswear company is working to bring its shoe manufacturing closer to the customer. This move changes the traditional long cycle of production in low-cost countries and subsequent shipping to stores. As inexpensive, faster, and more flexible robots become available, manufacturing of products such as shoes and clothing can be located near customers even in high-cost locations such as Germany. In short, time to market, delivery time, freight costs, and customer focus (based on personalization) dramatically improve when taking advantage of the new opportunities provided by digitization.

4. Industry 4.0 efforts need to be led by top management—they cannot be delegated. Few companies are taking a structured approach to implementing Industry 4.0 levers. According to McKinsey research, only 16 percent have a clear strategy in place, and only 24 percent have assigned clear responsibilities regarding Industry 4.0 efforts. Even companies in this select group tend to make one of two missteps: either they assign Industry 4.0 responsibility to a staff function with no direct execution power, or they place the required responsibility far too low in the management hierarchy. In either case, realizing full impact potential is jeopardized.

Ultimately, embarking on the Industry 4.0 journey means taking a risk—and risk taking cannot be delegated. Top management must therefore take ownership and apply a programmatic approach in order to drive value quickly and effectively. This high level of prioritization helps determine the success of an Industry 4.0 transformation, just as it did for lean. Both technology and people are critical, as they were for classic lean approaches Technological solutions, such as those including robots or advanced-analytics algorithms, are easy to access and install; in fact, such tools are already commodities in many situations. However, it takes a combination of technology and the corresponding domain knowledge (in value chains, maintenance, or process modeling, for example) to produce actions that deliver value.

5. What's more, implementing these actions typically requires redesigned work processes and new capabilities, both of which necessitate organizational transformation. Company leaders must lay out a strategy in advance to build or buy the capabilities they will need or to partner with organizations that can provide the capabilities. Industry 4.0 requires transformational and holistic thinking Successful lean transformations do not focus on improving the maintenance process alone but consider the production site as a whole. Work toward Industry 4.0 requires a similarly broad approach. In this case, companies will need to address the entire value chain, apply a full set of levers or solutions, and have a clear plan for scaling up new approaches across their entire network.

In addition, Industry 4.0 is characterized by the digitization of the manufacturing sector, driven by four disruptions: the astonishing rise in data volumes, computational power, and connectivity, especially new low-power wide-area networks; the emergence of analytics and business-intelligence capabilities; new forms of human-machine interaction such as touch interfaces and augmented-reality systems; and improvements in transferring digital instructions to the physical world, such as advanced robotics and 3-D printing. It is coincident that there are four trends or disruptions associated with Industry 4.0 which is the term used to describe the fourth major upheaval in modern manufacturing as shown previously in Figure 1.

Many digital technologies have been developing for some time. Some are not yet ready for application at scale. But many are now at a point where their greater reliability and lower cost are starting to make sense for industrial applications. However, companies are not consistently aware of the emerging technologies. Out of a survey of 300 manufacturing leaders in January 2015; only 48 percent of manufacturers consider themselves ready for Industry 4.0. Seventy-eight percent of suppliers say they are prepared.

Consider an actual example of each disruptive trend [4]:

- Big data. An African gold mine found ways to capture more data from its sensors. New data showed some unsuspected fluctuations in oxygen levels during leaching, a key process. Fixing this increased yield by 3.7 percent, worth up to \$20 million annually.
- Advanced analytics. Stronger analysis can dramatically improve product development. One automaker uses data from its online configurator together with purchasing data to identify options that customers are willing to pay a premium for. With this knowledge, it reduced the options on one model to just 13,000—three orders of magnitude fewer than its competitor, which offered 27,000,000. Development time and production costs fell dramatically, improving gross margins by 30 percent within 24 months.
- Human-machine interfaces. Logistics company Knapp AG developed a picking technology using augmented reality. Pickers wear a headset that presents vital information on a seethrough display, helping them locate items more quickly and precisely. And with both hands free, they can build stronger and more efficient pallets, with fragile items safeguarded. An integrated camera captures serial and lot ID numbers for real-time stock tracking. Error rates are down by 40 percent, among many other benefits.
- Digital-to-physical transfer. Local Motors builds cars almost entirely through 3-D printing, with a design crowd sourced from an online community. It can build a new model from scratch in a year, far less than the industry average of six. Vauxhall and GM, among others, still bend a lot of metal, but also use 3-D printing and rapid prototyping to minimize their time to market.

These changes and many others like them are sure to be far reaching, affecting every corner of the factory and the supply chain. The pace of change, however, will likely be slower than what has been seen in the consumer sector, where equipment is changed frequently. The coming of steam power and the rise of robotics resulted in the outright replacement of 80 to 90 percent of industrial equipment. In coming years, it is not expected that such capital investments will happen. Still, the executives surveyed estimate that 40 to 50 percent of today's machines will need upgrading or replacement."

#### Industry 4.0: what does it mean in practice and how does it look like?

The major challenges which industries will face are however not necessarily technological in nature. Indeed the majority of the innovations have been made and proven. So the question remains, what is hindering industries from developing their infrastructure? Several issues can be advanced [4]:

1. Training: In a similar manner to LEAN manufacturing principles, the vision is in essence simple, but the inherent concepts and principles supporting that vision are complex, not fully known yet, and require a culture change from organizations, which means a culture change from the workforce (employees, and management). This implies that organizations need to commit to training and in managing change. Let us recall that the average age of the workforce

in manufacturing in Canada is 57 years old. It is doubtful that this aged workforce will embrace easily the implementation of new technologies they probably do not understand.

2. Translating the vision into simple actionable tasks: Figure 3 is an attempt to provide granularity from a conceptual vision of what is Industry 4.0. The challenge will be to develop/design and implement extra layers of granularity. In addition, what works for one company will not necessarily work for another one. As such, organizations will have to practice in safe environments new tools and techniques before they can safely commit to implementing them. This point actually goes back to the first challenge in the sense that it will be more beneficial for organizations to have a workforce with the right knowledge, understanding, mindset and culture rather than a workforce which knows how to use specific tools.

**Industry 4.0 levers** Smart energy Intelligent consumption Real-time yield opti-Rapid experi-Routing Value drivers mentation flexibility and simulation Machine Resource flexibility engineering process Customer Remote cocreation/oper monitoring Time to innovation and control market utilization Predictive maintenance Augmented reality for MRO1 Quality Digital quality . Statistica

The 'digital compass' helps companies find tools to match their needs.

McKinsey&Company

.....pui

<sup>1</sup>Maintenance, repair, and operations

Figure 3: First steps into making Industry 4.0 real [4].

3. Artificial Intelligence: At the very fundamental level, AI describes the processes in a system for a machine which can then take control and make decisions based on statistical information and logic. Today, AI is already being employed to create self-driving cars, recommendation

systems as well as chatbots. In the business industries, it is viewed as an asset and is currently being employed to transform industries in the manufacturing, finance, education, transportation and several other industries. For example in healthcare, AI is being used for an efficient collection of patient data, conduct diagnostics and suggest possible ailments as well as remedial steps that can be taken. In the finance industry, AI is now employed to manage investment portfolios, perform predictive analysis on stock market trends, etc. In the transportation industry AI is being probed to build self-navigating cargo ships. There are several different industries actively pursuing AI [4]. AI will be a transformational technology that will soon redefine the way technology can be used to solve complex problems. AI will be a transformational technology that will soon redefine the way technology can be used to solve complex problems.

4. Big data: The age of analytics, competing in a data-driven world.

Data and analytics capabilities have made a leap forward in recent years. The volume of available data has grown exponentially, more sophisticated algorithms have been developed, and computational power and storage have steadily improved. The convergence of these trends is fuelling rapid technology advances and business disruptions.

- Most companies are capturing only a fraction of the potential value from data and analytics. A 2011 report estimated this potential in five domains; revisiting them today shows a great deal of value still on the table. The greatest progress has occurred in location-based services and in retail, both areas with digital native competitors. In contrast, manufacturing, the public sector, and health care have captured less than 30% of the potential value highlighted five years ago. Further, new opportunities have arisen since 2011, making the gap between the leaders and laggards even bigger.
  - The biggest barriers companies face in extracting value from data and analytics are
    organizational; many struggle to incorporate data-driven insights into day-to-day business
    processes. Another challenge is attracting and retaining the right talent; not only data
    scientists but business translators who combine data savvy with industry and functional
    expertise.
  - Data and analytics are changing the basis of competition. Leading companies are using
    their capabilities not only to improve their core operations but to launch entirely new
    business models. The network effects of digital platforms are creating a winner-take-most
    dynamic in some markets.
  - Data is now a critical corporate asset. It comes from the web, billions of phones, sensors,
    payment systems, cameras, and a huge array of other sources, and its value is tied to its
    ultimate use. While data itself will become increasingly commoditized, value is likely to
    accrue to the owners of scarce data, to players that aggregate data in unique ways, and
    especially to providers of valuable analytics.

- Data and analytics underpin several disruptive models. Introducing new types of data sets
   ("orthogonal data") can disrupt industries, and massive data integration capabilities can
   break through organizational and technological silos, enabling new insights and models.
   Hyperscale digital platforms can match buyers and sellers in real time, transforming
   inefficient markets. Granular data can be used to personalize products and services and,
   most intriguingly, health care. New analytical techniques can fuel discovery and
   innovation. Above all, data and analytics can enable faster and more evidence based
   decision making.
- Recent advances in machine learning can be used to solve a tremendous variety of problems and deep learning is pushing the boundaries even further. Systems enabled by machine learning can provide customer service, manage logistics, analyze medical records, or even write news stories. The value potential is everywhere, even in industries that have been slow to digitize. These technologies could generate productivity gains and an improved quality of life along with job losses and other disruptions. Previous MGI research found that 45% of work activities could potentially be automated by currently demonstrated technologies; machine learning can be an enabling technology for the automation of 80% of those activities. Breakthroughs in natural language processing could expand that impact even further.

Data and analytics are already shaking up multiple industries, and the effects will only become more pronounced as adoption reaches critical mass. An even bigger wave of change is looming on the horizon as deep learning reaches maturity, giving machines unprecedented capabilities to think, problem-solve, and understand language. Organizations that are able to harness these capabilities effectively will be able to create significant value and differentiate themselves, while others will find themselves increasingly at a disadvantage.

# 5. Internet of things

Enterprise IoT is gaining momentum Although enterprise IoT is a relatively new development, 98% of survey respondents reported that most companies within their industry include enterprise IoT initiatives in their strategic road maps, including those related to improving service operations, increasing visibility into operations, enabling new business models, and creating new product and service offerings as shown in Figure 4.

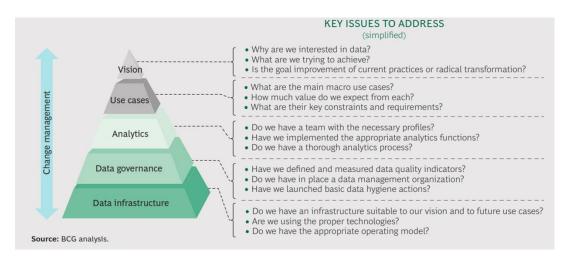


Figure 4: Leveraging data requires a comprehensive model [5].

Examples of new programs in IoT areas abound. For instance, an elevator company is creating a suite of IoT-enabled services to improve the reliability of its products and decrease downtime. In addition to lowering operating costs for the company's customers, these applications could potentially transform its business model.

To better understand the current state and future trend of IoT in operations and manufacturing McKinsey and Company conducted a survey on corporate views regarding IoT. The survey respondents had a favorable view of enterprise IoT's increased importance, with 92% stating that it would have a positive impact over the next three years, either by improving operations or by allowing companies to develop new products with embedded IoT capabilities. The latter development could eventually translate into higher revenues. Equally important, 62% of respondents stated that enterprise IoT's impact will either be very high or transformative. That means it could produce many more benefits than the modest improvements seen to date. Respondents also noted that top executives recognized IoT's potential value, with 48% reporting that company leaders either strongly supported or were directly engaged in IoT initiatives. Enterprise IoT could produce the greatest benefits in manufacturing and service operations Enterprise IoT can help improve multiple functions. When asked which department would benefit most, 40% of survey respondents cited service operations and 30% chose manufacturing, making them the clear leaders as shown in Figure 5 and 6 [6].

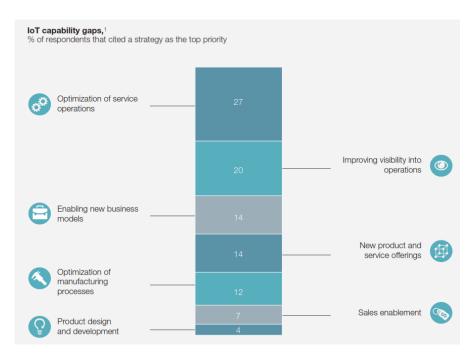


Figure 5: Executives identified many strategic priorities for the Internet of Things (IoT) [6].

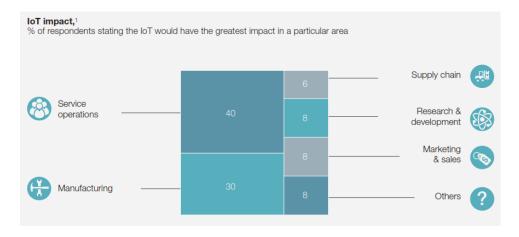


Figure 6: Survey respondents believe the Internet of Things (IoT) would convey most value to manufacturing and service operations [6].

For service operations, respondents believed that enterprise IoT would produce the most value in three areas: diagnostics and prognostics, predictive maintenance, and monitoring and inspection. In manufacturing, the top use cases were resource and process optimization (for

instance, improving yield, throughput, or energy consumption), asset utilization, and quality management.

Challenges persist in enterprise IoT Despite these encouraging findings; the survey uncovered some reasons for concern; particularly with respect to how companies are using IoT data. Respondents agreed that information from IoT sensors was valuable, with 60% stating that it provides significant insights, such as data on customer demographics or shopping patterns. But an almost equal number (54%) claimed that companies used 10% or less of this information. These findings are consistent with the evidence we have seen in the field. At one gas rig, for instance, managers only used 1% of data from the ship's 30,000 sensors when making decisions about maintenance planning.

The survey from McKinsey and Company also uncovered serious capability gaps that could limit enterprise IoT's potential. Some of these related to the sensor data discussed above, with survey respondents reporting that businesses often struggle with data extraction, management, and analysis as shown in Figure 7. But there were also significant capability problems in other areas. For instance, 70% of respondents stated that companies have not yet integrated IoT solutions into their existing business work flows; in other words, they are not using enterprise IoT to optimize day-to-day tasks. Respondents also noted that companies had difficulty identifying use cases for enterprise IoT applications and conducting end-to end prototyping for connected products.

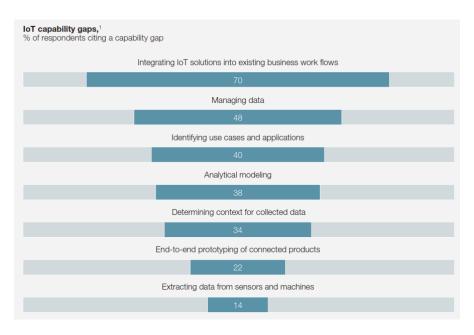


Figure 7: Companies have many capability gaps related to the Internet of Things (IoT) [6].

Addressing capability gaps may be challenging because companies often concentrate on piloting a single enterprise IoT program. With such a narrow focus, they do not consider the big picture, including the organizational capabilities and change-management programs required for the rollout of large-scale initiatives. This problem may become less intense as more business leaders begin recognizing enterprise IoT's value and place more emphasis on capability building. There is confidence that more companies will make a greater effort to incorporate enterprise IoT into their daily operations as its benefits become clearer. A few have already reported strong gains by moving in this direction. For example, Boeing workers now use IoT wearables and augmented-reality tools on wiring-harness assembly lines, which have resulted in up to 25% improvement in productivity.

# 6. Cyber-physical system:

Since 1970s there have been rapid advancements in computing hardware and software which have provided a basis for a continuing development of novel manufacturing methods, better decision making (based on models) in management of manufacturing processes and the supply chain, as well as paradigm-altering computing and communication devices which we encounter in our daily lives. This new manufacturing paradigm started with stand-alone computer applications which paved the way for the integration of manufacturing equipment with computer-based decision-making applications. Presently a vast change is underway in all aspects of the societal infrastructure and the way we live. Physical world, real space within which we reside is being increasingly augmented by its representation in digital software models, data and inferences engines which reside in various forms of computing systems. New domains of knowledge, which are being continuously discovered in this digital world, require new capabilities for engineering graduates.

The cyber-physical world is becoming a reality, comprised of a variety of cyber-physical systems as shown in Figure 8. Cyber-physical systems as shown in Figure 9, are characterized by a physical asset (e.g. machine) and its digital twin, i.e. a model which mimics the behavior of the physical asset. They are comprised of integrated, hybrid networks of cyber and engineered physical elements. They are co-designed and co-implemented to create adaptive and predictive systems which respond in real time to enhance the performance. Note that the Internet of Things (IoT) is a subset of cyber-physical systems, since its prevailing definition limits it to the physical assets, not including their digital models.



Figure 8: Cyber-physical world [7].

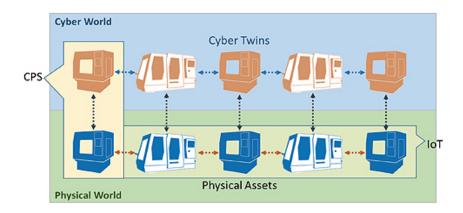


Figure 9: A cyber physical system is comprised of a physical asset and its software model [8].

A new era of integrated cyber-physical manufacturing systems has begun, requiring engineering graduates to have professional and technical capabilities which have not been associated with the traditional engineering disciplines. In other words, an engineer ready for the 21<sup>st</sup> century needs to have the knowledge and capabilities required to understand, design, and improve systems which are comprised of humans interacting with both physical and cyber components. Terms "Industry 4.0" and "Advanced Manufacturing" have been coined to designate such manufacturing systems.

Cyber-physical systems can be viewed from two vantage points:

- System structure, which has a lot of characteristics common across different domains. This
  is reflected in modeling methodologies and algorithms for optimization of the system
  performance.
- Technology required to build such systems, including the technologies specific to a given domain (e.g. internal combustion or electric engines in automotive).

#### The Case for Canada

In 2016, CME (Canadian Manufacturers & Exporters) conducted several surveys and consultation sessions with leaders of manufacturing organizations Canada wide. The purpose of these projects was to understand and define a strategy (shown in Figure 10), named "Industry 2030, a national strategy", which was aimed at identifying what would be required to enable Canadian manufacturers to double the sales output by 2030 [9].

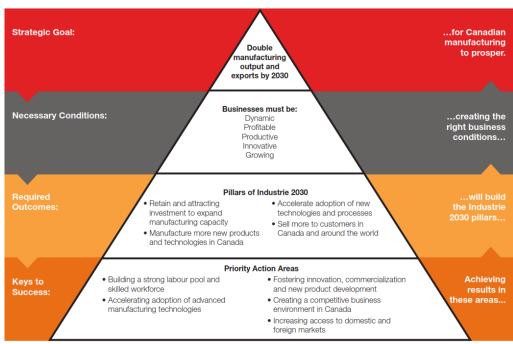


Figure 10: The Industry 2030 strategy roadmap [9].

The overall proposed strategy focuses on five points:

a. Building a strong and skilled workforce for growth.

Updated: January 2019

Page 16

- b. Accelerating the adoption of advanced manufacturing technologies.
- Fostering innovation, commercialization and new product development in Canadian markets.
- d. Manufacturing a competitive business environment in Canada.
- e. Increasing sales in domestic and foreign markets.

Technology, global competition, and customer expectations are also shaping the evolution of our industry, our workforce, and what products and services we ultimately offer. The pace of change is getting faster, and we need to do more than simply keep pace, or we run the risk of being left behind.

Manufacturing leaders rank skills and labour shortages as the most important issues they face today [9]. This message came through loudly and clearly from both the Industry 2030 consultations, as well as from the results of the 2016 Management Issues Survey. Specifically, executives noted deep concern both about the availability of workers as well as the skill level of existing and future employees at all levels of the organization. These skills gaps are undermining the current performance and future growth of their companies. Today, Canadian manufacturers directly employ 1.7 million people throughout their domestic operations. The skills of the workforce range from general labourers, to skilled tradespeople, to designers, to sales and service representatives, to management. However these skills sets are constantly being redefined as technology and business opportunity reshape the business of manufacturing. Technology is changing both the type of workers being used – a shift from general labour to specialized work – and the type of skills that are needed - from single-skilled and repetitive to multi-skilled and flexible. Technology is also impacting the type of products and services being offered, as well as how manufacturers operate; instead of merely building and selling a product in a local or regional market, businesses are now offering a range of customer services that are anchored around a manufactured product. Jobs are becoming more multi-skilled and specialized, and they are growing more valuable and less interchangeable. As a result, workers are becoming more difficult to find and harder to replace.

In Canada there exist significant gaps in talent in highly-educated and skilled population. According to the results of the 2016 Management Issues Survey, roughly 40 per cent of businesses face labour and skills shortages today. Five years from now, close to 60 per cent anticipate such shortages as shown previously in Figure 11.

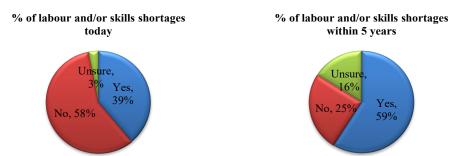


Figure 11: Immediate and future skilled labour shortages in industry [9].

These shortages stem from three primary sources:

- 1. An inability to attract youth into skilled trades relevant to manufacturing;
- 2. A disconnect between the formal training system and industry needs
- 3. An aging workforce.

These shortages are driving up costs, undermining productivity and eroding our global competitiveness. This is causing businesses to forego production opportunities and delay investment. In some cases, shortages of skilled workers are causing companies to consider relocating their operations outside Canada in order to sustain production. Skills shortages are also causing companies to under-invest in a range of advanced manufacturing technologies because their workers do not have the necessary technical skills, thus limiting manufacturers' ability to use these technologies to their fullest potential. Simply put, a lack of a sufficiently-sized and skilled labour pool is directly impacting the growth of manufacturing in Canada today, and will continue to restrict growth moving forward if substantial changes are not made.

Another issue repeatedly arose in the Industry 2030 consultations: the deficit of manufacturing leadership in Canada. While Canada does create great leaders, there are not enough of them. Leadership gets to the heart of manufacturing strategy and entrepreneurship. It affects how companies operate, how they invest, how they create new products and open new markets. It also affects how manufacturers train and develop their workforce. There is a major lack of capacity in training the next generation of innovative manufacturing leaders (in all levels of organizations) with up to date and applied skill sets. The distribution of labour and skills shortage is widespread, and thus a main incentive for companies to refocus on performance and efficiency, and the first consideration for their decision-making process for investments as shown in Figures 12 and 13.

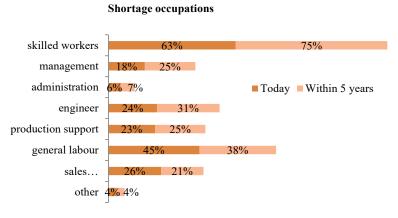


Figure 12: Occupational distribution in skilled labour shortages in industry [9].

#### How businesses address skilled labour shortages

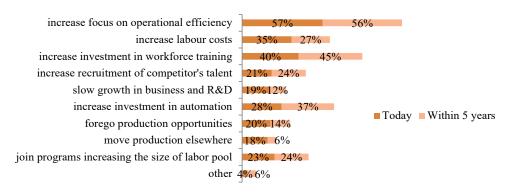


Figure 13: Response from industry to skilled labour shortages [9].

As part of the strategy to address the issues pertaining to building a strong and skilled workforce for growth, CME proposed the following set of general recommendations:

- Increase the effective engagement of youth, women and under-represented groups in the
  manufacturing labour force. Programs such as "open doors" that introduce
  underrepresented groups to opportunities in manufacturing should be expanded nationwide. Post-secondary science, technology, engineering and mathematics (STEM) training
  also needs to be improved, with an increased emphasis on workplace-focused technical,
  social and safety skills.
- Improve linkages between industry and post-secondary institutions. Manufacturers need to work more closely with educators to develop and fine-tune program curricula, as well as to offer feedback on the skills that recent graduates bring to the table so that curriculum adjustments can be made in a timely, relevant manner. The network of work-integrated learning programs across Canada needs, to be expanded to create better pathways to the development of work-related skills and ensure a better match between education and manufacturing workforce needs, including increased corporate participation and government support through incentives aimed at student wages.
- Expand supports for business-led training and management leadership. Better the Canada Job Grant, by increasing the program funding size and making it permanent (multi-year training, more on-the-job training, Industry 4.0, LEAN manufacturing...). Canadian manufacturers should work with post-secondary institutions to create new programs to support management training. The emphasis of these programs should be entrepreneurship, leadership (at the group and company level), operations management, LEAN techniques, and combined technical and management training (such as combined engineering and MBA programs).
- Improve access to foreign-trained skilled workers.

In addition, manufacturers have found that young graduates are not armed with the skillset they require to be integrated into industry. As a consequence, the average time to develop a new hire is reported as 2 years and is deemed too long. It is thus crucial that post-secondary curriculums be better aligned and emphasizes multi-disciplinary skills rather than specialization [9].

#### 1.2 PROPOSAL PREPARATION AND CONSULTATION PROCESS

Not applicable.

#### 1.3 CONSISTENCY WITH MCMASTER'S MISSION AND ACADEMIC PLAN

## i. McMaster's Strategic Mandate Agreement:

This Certificate of Completion will strengthen the relationship between McMaster and local industry.

# ii. McMaster's current priorities

The goal of the proposed certificate of completion is to transfer the latest technologies in operations leadership to the local community of businesses. The primary learning mode will be experiential learning, particularly during the workshops in which hands-on role play type activities will give the students the time and opportunity to practice in a safe environment what they have learned during the classes.

## 1.4 PROGRAM LEARNING OUTCOMES

Upon completion of the Certificate of completion the student will have acquired the knowledge and practical skills to:

PLO #1. Develop a fundamental and strong understanding of Artificial Intelligence, its meaning, the challenges industries are facing, the potential applications and opportunities, the technical and organizational limits which hinder its implementation.

PLO #2. Become an agent of change and develop the skill set and understanding in order to successfully communicate and lead Artificial Intelligence initiatives within their organizations.

PLO #3. Identify and quantify opportunities for implementing Artificial Intelligence tools and techniques within their organization, and in various functions (operations, sales, supply chain...).

PLO #4. Apply knowledge of mathematics, science, engineering fundamentals and specialized engineering technology appropriate to AI and Smart Systems.

PLO #5. Use technical knowledge and skills to identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions in AI and Smart Systems.

PLO #6. Design and improve operation of artificial intelligence integrated systems by methods that include appropriate experiments, analysis and interpretation of data and synthesis of information in order to reach valid conclusions.

#### 1.5 CONSISTENCY WITH DEGREE LEVEL EXPECTATIONS

Not applicable.

#### 1.6 DEMAND FOR THE PROGRAM

## EVIDENCE OF SOCIETAL/LABOUR MARKET NEED

Note: Some elements of this were mentioned previously in section 1.1. After a brief review, this section will present some data about the status of the labour market.

The CME conducts a biannual management survey across Canada, in order to get into the mindset, aspirations and concerns of manufacturers. The demographics of the survey are shown in Figure 14.



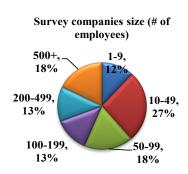




Figure 14: Distribution of survey respondents, companies' sizes and industrial sectors [10].

From the management survey, 2 of the top 5 concerns are finding a skilled and quality labour workforce, and the adoption and implementation of new technology to promote innovation. Overall, 4 main actions were identified as essential for the future of manufacturing in Canada from a management perspective, 2 of which are more of interest:

- Labour, skills and training: Manufacturers want improvements to the suite of programs available for in-house training, and they want more financial support for that training. They also want governments to work with post-secondary institutions to improve existing training programs and to expand work-integrated learning programs in Canada.
- Innovation and technology adoption: Uptake of advanced manufacturing technologies in Canada is low, but businesses want to reverse that trend. Respondents believe tax credits and other incentives will help offset investment risks. They also want more opportunities to examine and test these technologies.

In summary, the concerns of companies from a manpower perspective are aligned with the identified needs and requirements of manufacturing in Canada to be competitive; there is an urgent need to develop a training platform aligned between post-secondary institutions and industry to educate and develop a skilled and quality workforce which can be seamlessly integrated by industry. A particular attention needs to be given to the training of employees and managers on tools and techniques pertaining to Industry 4.0, such as Artificial Intelligence, as they are the first enablers and engagers of the work force, particularly in the adoption of new technologies.

In addition, one cannot ignore the dramatic shift in societal needs which is the natural evolution following the innovations in technology trends. For example, the following table presents the shift in demand of the top 10 jobs that has occurred within the last 15 years. This data was gathered from many sources around the world (Forbes, globe and mail, World economic Forum, Statistics Canada, monster...).

Table 1: change in demand for top jobs for the past 15 years.

15 years ago	Now
Administrative assistant	Online community manager/chief listening officer
Sales clerk	Sustainability manager
Teacher	Educational/admission consultant
Transportation operator	Data miner
Hospitality manager	Millennial generational expert
Medical assistant	Cloud computing/IT architecture expert
Investment banker	Engineering technician
Mechanic	User experience manager
Real estate agent	Manufacturing functions (quality, supply chain)
Social worker	Elder care

Complementary to the change in job demand, studies have shown that the skill set required for employees to thrive in the fourth industrial revolution, is expected to shift as shown in Figure 15.

# Top 10 skills

# in 2020

- 1. Complex Problem Solving
- 2. Critical Thinking
- 3. Creativity
- 4. People Management
- 5. Coordinating with Others
- 6. Emotional Intelligence
- 7. Judgment and Decision Making
- 8. Service Orientation
- 9. Negotiation
- 10. Cognitive Flexibility

# in 2015

- 1. Complex Problem Solving
- 2. Coordinating with Others
- 3. People Management
- 4. Critical Thinking
- 5. Negotiation
- 6. Quality Control
- 7. Service Orientation
- 8. Judgment and Decision Making
- 9. Active Listening
- 10. Creativity





Source: Future of Jobs Report, World Economic Forum

Figure 15: changes in skill set required for industry [11].

In addition, SEPT already has a past history of developing industry specific programs for employees such as the Technology Leadership Certificate.

# 1.7 DEGREE NOMENCLATURE

Not applicable.

# 2 ADMISSION & ENROLMENT

# 2.1 ADMISSION REQUIREMENTS

Applicants with a 4 year undergraduate degree in engineering or science, as well as applicants with an advanced 3-year college diploma will be admitted to the Certificate of completion. A letter of support from the applicant's employer will also be required.

# 2.2 ENROLMENT PLANNING AND ALLOCATIONS

Not applicable.

# 2.3 ALTERNATIVE REQUIREMENTS

Not applicable.

## 3 STRUCTURE

# 3.1 ADMINISTRATIVE, GOVERNANCE AND COMMUNICATION

The proposed program resides within the W Booth School of Engineering Practice and Technology; a School within the Faculty of Engineering. The School is led by a Director who reports to the Dean of Engineering. The Director of the School serves a 5-year term and is appointed by the Senate. The program will be lead and administered by a program leader reporting to the director of the school.

# 3.2 STRUCTURE AND REGULATION

#### **Program Structure**

The proposed certificate of completion will provide participants with technical and professional capabilities. Each course will include 32 hrs of lecture and labs with hands on experience.

The courses will be scheduled in 'blocks' of time which are intended to make the Certificate of completion more appealing and accessible to working professionals as well as for students who want to have an intensive and expedited training in the summer.

# **Modes of Delivery**

The coursework for this Certificate of completion will be offered as seven modules based on a theme, via a blend of on-line and in-class delivery over bursts of several 2-day workshops. The courses will be scheduled in 'blocks' of time which are intended to make the Certificate of completion more appealing and accessible to working professionals (see calendar below).

Module #	Title
1	Foundation knowledge
2	Fundamentals of AI and ML
3	Neural Network & Development Tools
4	Deep learning and its Applications
5	Data analytics & Big Data
6	Data Mining
7	Ethics & Policy

#### 3.3 GRADUATE PROGRAMS - PROGRAM LENGTH

Not applicable.

## 4 CURRICULUM AND TEACHING

## 4.1 PROGRAM CONTENT

The Artificial Intelligence Certificate of completion is focused on engaging and enabling its graduates to acquire and practice the knowledge, technical background, professional behaviors and competencies required in order to lead initiatives within their organization involving the implementation of innovations and technologies involving Artificial Intelligence. To ensure that the course is accessible and useful for an audience from a wide variety of industries, numerous case studies will be taken up during the session to highlight the implementation/relevance of AI in different industrial sectors.

The current states and emerging trends in Artificial Intelligence will be the subject of the program. Term workshops and practical activities in this program will facilitate in-depth and practical exploration of specific topics as well as a survey of the broad system aspects by the students.

The latest industry-applicable methods and standards will be addressed in the corresponding courses. Relevant infrastructure standards from different parts of the globe will be presented as needed and their impact will be discussed.

#### 4.2 PROGRAM INNOVATION

The program is structured and delivered in an innovative way more suitable for training of professionals working in industry. A total of 9 courses will be delivered in these 7 modules. In addition to theoretical aspects, case studies and development exercises will be taken up to enable the students to obtain first-hand knowledge of applicability, implementation details of Artificial Intelligence. The following table highlights the module/course matrix.

Table 2: Training matrix showing the relations between four thematic modules and the 8 courses.

Course	Module Number
Data Structures & Algorithms	1
Probability & Statistics	1
Foundations of Artificial Intelligence and Machine Learning	2
Neural Network & Development Tools	3
Machine Learning Classification Models	4
Deep learning and its Applications	4
Data analytics & Big Data	5
Data Mining	6
Ethics & Policy	7

The core architecture of the courses delivery and knowledge acquisition is as follow:

- Practical knowledge based on simple tools and techniques which focus on the fundamentals of Artificial Intelligence.
- Experiential learning: students will be asked to bring forward real issues they are facing or best practices. These scenarios will be used during the workshops by applying what they have learned in class.
- Problem solving: The purpose of the curriculum is to guide the students so that they build confidence in tackling and solving problems or initiating improvements.
- Team based activities will be undertaken, not only as part of the learning experience, but also as part of networking practice. The intent is for the team to stay in contact professionally.
- Industrial speakers will be invited as well, to share their own experience with the students in terms of Artificial Intelligence (and their career).

# 4.3 MODE(S) OF DELIVERY

The program is delivered in a blended learning environment including online lectures, forums, self-directed learning and hands-on applications.

## 4.4 EXPERIENTIAL LEARNING

The program is uniquely defined through a strong experiential learning component. Each course is specifically oriented towards problem-solving, the intensive workshops provide a hands-on learning experience and courses emphasize a "learn-by-doing" approach. Work on industry or civic oriented problems will provide further opportunities for experiential learning by solving problems encountered in real industry situations.

# 4.5 ACCESSIBILITY The program supports an environment in which race, age and gender are irrelevant. The program is focused on helping students to attain the level of capabilities corresponding to their role and function irrespective of their abilities or disabilities.

# **4.6 RESEARCH REQUIREMENTS (IF APPLICABLE)**Not applicable

# 5 ASSESSMENT OF LEARNING

# 5.1 METHODS FOR ASSESSING STUDENTS

Student assessment during the course of the Program will be based on demonstrated learning outcomes in each course. Assessments in the courses will be based on:

- Assignments
- Demonstrated learning during workshop
- Questionnaire

# 5.2 CURRICULUM MAP

Program Learning Outcome			
By the end of the program, students will	Expectations	Teaching activities & learning opportunities	Assessments & evidence
Develop a fundamental and strong understanding of Artificial Intelligence, its meaning, the challenges industries are facing, the potential applications and opportunities, the technical and organizational limits which hinder its implementation.	Understand industry 4.0 Communication Leadership Basic financials		
Become an agent of change and develop the skill set and understanding in order to successfully communicate and lead initiatives of Industry 4.0 within their organizations.	Communication Active listening Leadership Initiative	Each module will have a blend of online lectures, scenario	
Identify and quantify opportunities for implementing Artificial Intelligence tools and techniques within their organization, and in various functions (operations, sales, supply chain).	Communication Continuous improvement Problem solving Project management	assignments, and inspirational videos or texts. A final 3 day workshop will	Assignments, questionnaires, and activity
Apply knowledge of mathematics, science, engineering fundamentals and specialized engineering technology appropriate to AI and Smart Systems.	Problem solving Project management	give the students hands-on experience in applying the	during the workshops.
Use technical knowledge and skills to identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions in AI and Smart Systems.	Entrepreneurship & Intrapreneurship Communication, Team management	fundamental concepts reviewed during the module.	
Design and improve operation of AI integrated systems by methods that include appropriate experiments, analysis and interpretation of data and synthesis of information in order to reach valid conclusions.	Entrepreneurship & Intrapreneurship Communication		

## 5.3 DEMONSTRATING STUDENT ACHIEVEMENT

The assessment tasks will be designed to measure the achievement of program and course level learning outcomes throughout the program and will be embedded into each course.

The following assessment tools will be used to measure student achievements: assignments, and questionnaires. These will be graded using the McMaster University grading system.

The data collected from each of these activities will be analysed using a variety of methods that are currently used in the department.

We will be conducting a survey of students asking them to reflect on their learning experiences. A similar survey of faculty and the students' respective organizations will also be conducted to assess the achievement of learning outcomes by the students and their efforts to provide activities for assessment of the learning outcomes, levels of achievement, and any associated challenges.

## 6 RESOURCES

## ADMINISTRATIVE, PHYSICAL AND FINANCIAL RESOURCES

The Program will be hosted by the W.Booth School of Engineering Practice. The School has administrative staff experienced in the operation of graduate, undergraduate and industry oriented programs. The Director of the School is responsible for the programs offered by the School. Day to day operation of the programs will be managed by a Program Leader who will assume the responsibility for the management of the new program.

The program will be funded from the courses fees. Immediately after the program is approved, the School will start implementing a marketing program which will be prepared in advance in cooperation with the marketing group in the Faculty of Engineering.

At the time of processing applications for the first cohort (expected in 2019/2020) of approximately 20 accepted students, it is anticipated the Program Leader will be responsible for the administrative tasks related to this Certificate of completion. The need for admin support will be assessed in future years of the program.

The delivery of the program will use sessional lecturers with very specific and relevant industry experience. This will likely include the Program Leader which will also be a contract position.

SEPT physical space in ETB building will be used to provide a working and teaching space for the students and instructors.

Mohawk resources will be used as well as required.

#### LIBRARY, TECHNOLOGY, AND LABORATORY RESOURCES

Library facilities in the traditional sense (books and journals on the shelves and space to sit and read them in the library) are not needed by the Program. On-line availability of existing journals and books will provide students with access to the material required for their course work.

W. Booth School of Engineering Practice and Technology has a unique Learning Factory which will be used as sand box for role plays, case scenario study, and learning environment for Industry 4.0.

#### **Learning Factory (Industry 4.0)**

SEPT is currently creating a Learning Factory which will provide hands-on learning of systems and components which constitute Industry 4.0. Most of the required equipment is already available at SEPT and we are confident that this learning facility will be ready well before 2019/2020.

The Learning Factory will provide integration from enterprise planning level to the production equipment. It will include prototyping tools, actual cyber-physical systems examples (discrete manufacturing, continuous manufacturing, smart homes/buildings, smart grid, and smart transportation). A simplified representation of the Learning Factory is given in Figure 17.

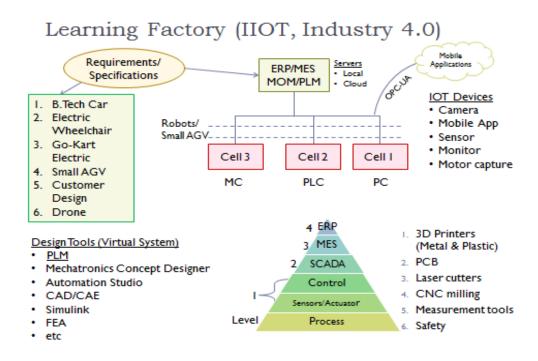


Figure 17: Simplified representation of the Learning Factory [12].

# **FACULTY**

The proposed program has been budgeted using sessional lecturers. However, several current SEPT Faculty members may fill teaching roles within the Certificate of completion as appropriate.

Table 2 Faculty Members for W. Booth School of Engineering Practice and Technology who may teach courses with the Certificate Program

Name	Rank	M/F	Dept.
Mo Elbestawi	Professor	M	SEPT
Vladimir Mahalec	Professor	M	SEPT
Fleising, Robert	Associate Professor	M	SEPT
David Potter	Associate Professor	M	SEPT
Dan Centea	Assistant Professor	M	SEPT
Gao, Zhen	Assistant Professor	M	SEPT
Jeff Fortuna	Assistant Professor	M	SEPT
Mehrtash, Moein	Assistant Professor	M	SEPT
Tom Wanyama	Assistant Professor	M	SEPT
Seshasai Srinivasan	Assistant Professor	M	SEPT
Singh, Ishwar	Adjunct Professor	M	SEPT
Mikhail Hanna	Adjunct Professor	M	SEPT

# 7 QUALITY AND OTHER INDICATORS

# 7.1 ACADEMIC QUALITY OF THE PROGRAM

This certificate of completion will be added to the school's IQAP process.

## 7.2 INTELLECTUAL QUALITY OF THE STUDENT EXPERIENCE

The fundamental nature of the program based on problem solving of real issues the students are facing, improvement of their work area, and interaction with peers from other sectors should encourage 'crosspollination' of knowledge and experience.

SEPT Faculty have been recognized as having one of the highest student ratings in the Faculty of Engineering, which is a clear indication of their ability to engage students and create an engaging working environment.

In addition to the classes, the students will be able to participate in the social activities in SEPT. Remotely located students will be able to interact with their colleagues via social media platforms (e.g. Facebook group for each class is a tradition at SEPT).

# **8 REFERENCES**

- 1. Defalco, F. "INDUSTRY 4.0 . . . The Next Industrial Revolution", *Canada Makes*. Web. January 2, 2018 http://canadamakes.ca/industry-4-0-next-industrial-revolution/.
- 2. Ammi, B., Khatoun, R., Zeadally, S., Fayad, A., and Khoukhi, L. (2017). "Internet of Things (IoT) Technologies for Smart Cities." *IET Networks*. 7.
- 3. Behrendt, A., Muller, N., Odenwalder, P., and Schmitz, C. "Industry 4.0 Demystified Leans Next Level." *McKinsey & Company*. Web. March, 2017 <a href="https://www.mckinsey.com/business-functions/operations/our-insights/industry-4-0-demystified-leans-next-level">https://www.mckinsey.com/business-functions/operations/our-insights/industry-4-0-demystified-leans-next-level</a>.
- Baur, C., Wee, D. "Manufacturing's Next Act", McKinsey & Company. Web. June 2015 <a href="https://www.mckinsey.com/business-functions/operations/our-insights/manufacturings-next-act">https://www.mckinsey.com/business-functions/operations/our-insights/manufacturings-next-act</a>
- 5. Gourevitch, A., Fauste, L., Baltassis, E., Marx, J. "Data Driven Transformation: Accelerate at Scale Now." *Boston Consulting Group*. Web. May 23, 2017 <a href="https://www.bcg.com/publications/2017/digital-transformation-transformation-data-driven-transformation.aspx?linkId=45057569&redir=true">https://www.bcg.com/publications/2017/digital-transformation-transformation-data-driven-transformation.aspx?linkId=45057569&redir=true</a>
- Chui, M., Ganesan, V., Patel, M. "Taking the Pulse of Enterprise IoT." McKinsey & Company. Web. July, 2017 <a href="https://www.mckinsey.com/featured-insights/internet-of-things/our-insights/taking-the-pulse-of-enterprise-iot">https://www.mckinsey.com/featured-insights/internet-of-things/our-insights/taking-the-pulse-of-enterprise-iot</a>
- 7. Roarke, E., "Cyber-Physical Systems." *Device-Smart.com*. March 5, 2014 <a href="https://devicesmart.wordpress.com/tag/cyber-physical-systems/">https://devicesmart.wordpress.com/tag/cyber-physical-systems/</a>
- 8. Bagheri, B., and Lee, J. "Big Future for Cyber-Physical Manufacturing Systems." *Design World*. September 23, 2015 <a href="https://www.designworldonline.com/big-future-for-cyber-physical-manufacturing-systems/">https://www.designworldonline.com/big-future-for-cyber-physical-manufacturing-systems/</a>
- 9. Canadian Manufacturers & Exporters. "Industry 2030, A National Strategy". November, 2018.
- 10. Canadian Manufacturers & Exporters. "Industry 2030, Management Issues Survey 2016". 2016.
- 11. World Economic Forum. "The 10 Skills You Need to Thrive in the 4<sup>th</sup> Industrial Revolution." <a href="https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/">https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/</a>

Updated: January 2019 Page 36



# **NEW PROGRAM PROPOSAL**

**Automation Systems:** 

**Architecture & Programming certificate of completion** 

(courses + project)

Mostafa Soliman

**December 19, 2018** 

# TABLE OF CONTENTS

1	PKC	GRAIVI	3
	1.1	PROGRAM DESCRIPTION	3
	1.2	PROPOSAL PREPARATION AND CONSULTATION PROCESS	20
	1.3	CONSISTENCY WITH MCMASTER'S MISSION AND ACADEMIC PLAN	20
	1.4	PROGRAM LEARNING OUTCOMES	20
	1.5	CONSISTENCY WITH DEGREE LEVEL EXPECTATIONS	21
	1.6	DEMAND FOR the PROGRAM	21
	Evider	ce of Societal/Labour Market Need	21
	1.7	DEGREE NOMENCLATURE	24
2	ADI	MISSION & ENROLMENT	25
	2.1	ADMISSION REQUIREMENTS	25
	Applic	ants with a 4 year undergraduate degree in engineering or science, as well as applicants w	vith
	an adv	ranced 3-year college diploma will be admitted to the Certificate of completion. A letter of	of
	suppo	rt from the applicant's employer will also be required	25
	2.2	ENROLMENT PLANNING AND ALLOCATIONS	25
	2.3	ALTERNATIVE REQUIREMENTS	25
3	STR	UCTURE	26
	3.1	ADMINISTRATIVE, GOVERNANCE AND COMMUNICATION	26
	3.2	STRUCTURE AND REGULATION	
	3.3	GRADUATE PROGRAMS - PROGRAM LENGTH	26
4	CUF	RICULUM AND TEACHING	27
	4.1	PROGRAM CONTENT	27
	4.2	PROGRAM INNOVATION	27
	4.3	MODE(S) OF DELIVERY	27
	4.4	EXPERIENTIAL LEARNING	27
	4.5	ACCESSIBILITY	27
	4.6	RESEARCH REQUIREMENTS (IF APPLICABLE)	27
5	ASS	ESSMENT OF LEARNING	28
	5.1	METHODS FOR ASSESSING STUDENTS	28
	5.2	CURRICULUM MAP	28
	5.3	DEMONSTRATING STUDENT ACHIEVEMENT	29
6	RES	OURCES	30
		MINISTRATIVE, PHYSICAL AND FINANCIAL RESOURCES	
	LIBI	RARY, TECHNOLOGY, AND LABORATORY RESOURCES	30
		TULTY	
		DENT FINANCIAL SUPPORT	_
		CULTY RESEARCH FUNDING – NOT APPLICABLE; THIS IS NOT A RESEACH PROGRAM	
7	-	ALITY AND OTHER INDICATORS	
	7.1	ACADEMIC QUALITY OF THE PROGRAM	
	7.2	INTELLECTUAL QUALITY OF the STUDENT EXPERIENCE	
8	REF	ERENCES	33

# 1 PROGRAM

#### 1.1 PROGRAM DESCRIPTION

The proposed certificate of completion combines professional development with technical competencies required for designing, configuring and programming modern automation systems. This certificate of completion is part of the overall program on Digital Manufacturing and Industry 4.0 available throughout 2019 at the school.

The audience of the program is intended to be:

- 1. Primarily technologists and engineers who are working in automated industries including but not limited to manufacturing, petrochemical, electrical power generation.
- Later on by extension, graduate students with no automation background who want to
  acquire the necessary knowledge to prepare them for pursuing one of the related Masters
  of Engineering Degrees offered by the W Booth School of Engineering Practice and
  Technology.

# Background: Artificial Intelligence as part of a rich, organic, and complex ecosystem - Industry 4.0 or the fourth revolution of manufacturing and services

The following report is based on several sources, primarily from McKinsey & Company which highlights key findings for the successful implementation of Artificial Intelligence.

Few technological innovations have steered as much conversations, ideas, debates, uncertainties and doubts as the digitization of manufacturing or Industry 4.0 has, in the past few years. Full of promises and potentials, the concept still remains largely unclear and complex, which seems largely due to the lack of understanding, training, and willingness from organizations to embrace it. Indeed, according to several worldwide surveys, most major industries and services, still lack understanding, vision, direction and utilization of those tools and techniques, even though most of the technological innovations are known. The situation is even more drastic for SMEs which are simply left out of the revolution.

The essence of Industry 4.0 is the evolution of industries towards the development of interconnected devices, components and systems as shown in Figure 1. It can be summarized as the integration of cyber-physical systems inside and outside of an organization. It encompasses not only internal physical and cyber assets such as machinery, equipment, processes, and databases but also the integration of external components such as suppliers, supply chain and customers. Although, initial definitions were targeted at manufacturing industries, as shown in Figure 2, it has become more and more apparent that the ramifications of Industry 4.0 principles are spreading across multiple sectors.

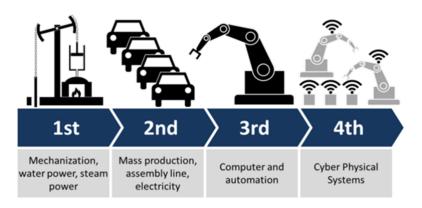


Figure 1: The fourth industrial revolution [1]

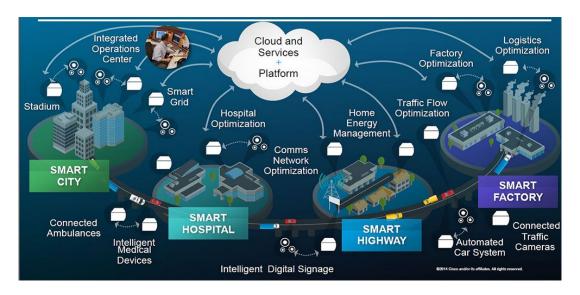


Figure 2: Industry 4.0 and interconnectivity across multiple sectors [2].

Interestingly, manufacturing seems to be lagging behind the service industries mostly due to the fact that the latter is more prone to frequent technological upgrades.

# Beyond Industry 4.0 hype: Five core principles for creating value at lean's next level

Based on experience working with clients on digital and Industry 4.0 transformations, McKinsey and Company have identified five principles that can help companies successfully convert Industry 4.0 solutions into real value and bottom-line impact [3].

1. As cost pressure across all industries continually increases, companies face the need to improve productivity by two to four percentage points every year. Our estimates, based on numerous studies, show that digitally enabled advancements are unleashing the potential to create value equivalent to efficiency improvements of 15 to 20 percent. This productivity leap will not come from the application of a single solution. To generate meaningful impact, companies will have to address all elements of profit and loss while also applying a broad range of solutions at scale.

For example, a reduction of total machine downtime by 30 to 50 percent-a feat possible with predictive maintenance or remote monitoring will greatly increase asset utilization. Labour efficiency is another area with high potential. Digital performance management combined with advanced robotics and automated guided vehicles can further automate manual work (for example, in picking and in-plant transportation) and has the potential to improve labour productivity by an additional 40 to 50 percent.

- 2. Advanced analysis of granular data on machining processes, generated in real time, will be fundamental to identifying and addressing the underlying causes of process inefficiencies and problems with quality—faster and more effectively. Furthermore, forecasting processes that draw heavily on big data already can drastically reduce inventories and improve service levels today.
- 3. Industry 4.0 is a topic for the business, not just the IT department; IT enables Industry 4.0 but should not drive implementation. Companies tend to start by considering how to apply the new approaches to their IT systems. They should focus instead on how they will conduct their business in the future, thinking through changes from a value-chain and business-case standpoint.

For example, one global sportswear company is working to bring its shoe manufacturing closer to the customer. This move changes the traditional long cycle of production in low-cost countries and subsequent shipping to stores. As inexpensive, faster, and more flexible robots become available, manufacturing of products such as shoes and clothing can be located near customers even in high-cost locations such as Germany. In short, time to market, delivery time, freight costs, and customer focus (based on personalization) dramatically improve when taking advantage of the new opportunities provided by digitization.

4. Industry 4.0 efforts need to be led by top management—they cannot be delegated. Few companies are taking a structured approach to implementing Industry 4.0 levers. According to McKinsey research, only 16 percent have a clear strategy in place, and only 24 percent have assigned clear responsibilities regarding Industry 4.0 efforts. Even companies in this select group tend to make one of two missteps: either they assign Industry 4.0 responsibility to a staff function with no direct execution power, or they place the required responsibility far too low in the management hierarchy. In either case, realizing full impact potential is jeopardized.

Ultimately, embarking on the Industry 4.0 journey means taking a risk—and risk taking cannot be delegated. Top management must therefore take ownership and apply a programmatic approach in order to drive value quickly and effectively. This high level of prioritization helps determine the success of an Industry 4.0 transformation, just as it did for lean. Both technology and people are critical, as they were for classic lean approaches Technological solutions, such as those including robots or advanced-analytics algorithms, are easy to access and install; in fact, such tools are already commodities in many situations. However, it takes a combination of technology and the corresponding domain knowledge (in value chains, maintenance, or process modeling, for example) to produce actions that deliver value.

5. What's more, implementing these actions typically requires redesigned work processes and new capabilities, both of which necessitate organizational transformation. Company leaders must lay out a strategy in advance to build or buy the capabilities they will need or to partner with organizations that can provide the capabilities. Industry 4.0 requires transformational and holistic thinking Successful lean transformations do not focus on improving the maintenance process alone but consider the production site as a whole. Work toward Industry 4.0 requires a similarly broad approach. In this case, companies will need to address the entire value chain, apply a full set of levers or solutions, and have a clear plan for scaling up new approaches across their entire network.

In addition, Industry 4.0 is defined as the next phase in the digitization of the manufacturing sector, driven by four disruptions: the astonishing rise in data volumes, computational power, and connectivity, especially new low-power wide-area networks; the emergence of analytics and business-intelligence capabilities; new forms of human-machine interaction such as touch interfaces and augmented-reality systems; and improvements in transferring digital instructions to the physical world, such as advanced robotics and 3-D printing. It is coincident that there are four trends or disruptions associated with Industry 4.0 which is the term used to describe the fourth major upheaval in modern manufacturing as shown previously in Figure 1.

Many digital technologies have been developing for some time. Some are not yet ready for application at scale. But many are now at a point where their greater reliability and lower cost are starting to make sense for industrial applications. However, companies are not consistently aware of the emerging technologies. Out of a survey of 300 manufacturing leaders in January 2015; only 48 percent of manufacturers consider themselves ready for Industry 4.0. Seventy-eight percent of suppliers say they are prepared.

Consider an actual example of each disruptive trend [4]:

- Big data. An African gold mine found ways to capture more data from its sensors. New data showed some unsuspected fluctuations in oxygen levels during leaching, a key process. Fixing this increased yield by 3.7 percent, worth up to \$20 million annually.
- Advanced analytics. Stronger analysis can dramatically improve product development. One automaker uses data from its online configurator together with purchasing data to identify options that customers are willing to pay a premium for. With this knowledge, it reduced the options on one model to just 13,000—three orders of magnitude fewer than its competitor, which offered 27,000,000. Development time and production costs fell dramatically, improving gross margins by 30 percent within 24 months.
- Human-machine interfaces. Logistics company Knapp AG developed a picking technology using augmented reality. Pickers wear a headset that presents vital information on a seethrough display, helping them locate items more quickly and precisely. And with both hands free, they can build stronger and more efficient pallets, with fragile items safeguarded. An integrated camera captures serial and lot ID numbers for real-time stock tracking. Error rates are down by 40 percent, among many other benefits.
- Digital-to-physical transfer. Local Motors builds cars almost entirely through 3-D printing, with a design crowd sourced from an online community. It can build a new model from scratch in a year, far less than the industry average of six. Vauxhall and GM, among others, still bend a lot of metal, but also use 3-D printing and rapid prototyping to minimize their time to market.

These changes and many others like them are sure to be far reaching, affecting every corner of the factory and the supply chain. The pace of change, however, will likely be slower than what has been seen in the consumer sector, where equipment is changed frequently. The coming of steam power and the rise of robotics resulted in the outright replacement of 80 to 90 percent of industrial equipment. In coming years, it is not expected that such capital investments will happen. Still, the executives surveyed estimate that 40 to 50 percent of today's machines will need upgrading or replacement."

#### Industry 4.0: what does it mean in practice and how does it look like?

The major challenges which industries will face are however not necessarily technological in nature. Indeed the majority of the innovations have been made and proven. So the question remains, what is hindering industries from developing their infrastructure? Several issues can be advanced [4]:

1. **Training:** In a similar manner to LEAN manufacturing principles, the vision is in essence simple, but the inherent concepts and principles supporting that vision are complex, not fully known yet, and require a culture change from organizations, which means a culture change from the workforce (employees, and management). This implies that organizations need to commit to training and in managing change. Let us recall that the average age of the workforce

in manufacturing in Canada is 57 years old. It is doubtful that this aged workforce will embrace easily the implementation of new technologies they probably do not understand.

2. Translating the vision into simple actionable tasks: Figure 3 is an attempt to provide granularity from a conceptual vision of what is Industry 4.0. The challenge will be to develop/design and implement extra layers of granularity. In addition, what works for one company will not necessarily work for another one. As such, organizations will have to practice in safe environments new tools and techniques before they can safely commit to implementing them. This point actually goes back to the first challenge in the sense that it will be more beneficial for organizations to have a workforce with the right knowledge, understanding, mindset and culture rather than a workforce which knows how to use specific tools.

**Industry 4.0 levers** Smart energy Intelligent consumplots tion Real-time yield opti-Rapid experi-Routing Value drivers mentation flexibility and simulation Machine Resource flexibility engineering process Customer Remote cocreation/open monitoring Time to innovation and control market utilization Predictive maintenance Augmented reality for MRO1 Quality Digital quality . Statistica

The 'digital compass' helps companies find tools to match their needs.

Figure 3: First steps into making Industry 4.0 real [4].

# 3. Automation in Industry 4.0

McKinsey&Company

<sup>1</sup>Maintenance, repair, and operations

Automation systems play an important role in the industry 4.0. Currently, automation systems have a standard hieratical architecture that consists of five layers as specified by ISA-95 and shown in Figure 4.

- **Process level 0:** Describing the physical process that is controlled and monitored by the automation system.
- Sensor and actuators level 1: Sensors and actuators are connected to the physical process. Sensors are used to monitor the status of the process and actuators are used to adjust and regulate the process variables to meet certain desired specifications.
- Monitoring, control, and supervision level 2: this level is responsible for monitoring and controlling the process/plant. This is accomplished by using PLCs, SCADA, and/or DCS.
- Manufacturing Execution System (MES) level 3: Work flow control based on machine, material, and other resource availability
- Enterprise Resource Planning (ERP) level 4: Enterprise level planning, material supply product shipment, inventory, etc.

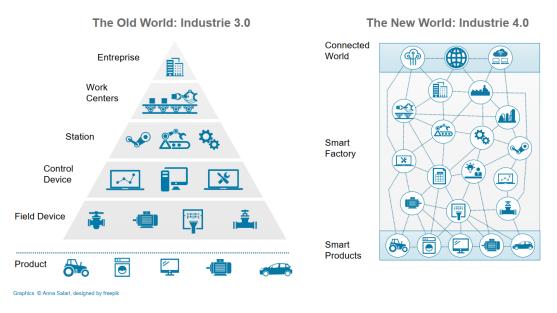


Figure 4: Hierarchical structure for Industry 3.0 and 4.0 systems as per ISA-95.

The current hierarchal automation systems seems to be limited to approximately 100.000 I/O points. This becomes a technology barrier in future smart cities and smart energy grids applications. Furthermore, the plat production is not flexible and the functionality is tightly coupled to the hardware.

The introduction of Industry 4.0 concepts allowed to build upon the last generation of industrial monitoring and control systems in order to achieve a finer level of interaction between shop-floor devices and high-level enterprise systems. In Industry 4.0, state of the art technologies like the

Template Updated: January 2019

Page 9

Internet of Things (IoT) and the Cyber-Physical Systems (CPS) are utilised in order to be able to break the classical strict hierarchical approach of ISA-95 with a more flexible approach. This in turn can drastically improve the plant production, the financial benefits, and the size of the system can be drastically increased to meet modern applications needs such as smart cities and smart grids.

4. Big data: The age of analytics, competing in a data-driven world.

Data and analytics capabilities have made a leap forward in recent years. The volume of available data has grown exponentially, more sophisticated algorithms have been developed, and computational power and storage have steadily improved. The convergence of these trends is fuelling rapid technology advances and business disruptions.

- Most companies are capturing only a fraction of the potential value from data and analytics. A 2011 report estimated this potential in five domains; revisiting them today shows a great deal of value still on the table. The greatest progress has occurred in location-based services and in retail, both areas with digital native competitors. In contrast, manufacturing, the public sector, and health care have captured less than 30% of the potential value highlighted five years ago. Further, new opportunities have arisen since 2011, making the gap between the leaders and laggards even bigger.
  - The biggest barriers companies face in extracting value from data and analytics are
    organizational; many struggle to incorporate data-driven insights into day-to-day business
    processes. Another challenge is attracting and retaining the right talent; not only data
    scientists but business translators who combine data savvy with industry and functional
    expertise.
  - Data and analytics are changing the basis of competition. Leading companies are using
    their capabilities not only to improve their core operations but to launch entirely new
    business models. The network effects of digital platforms are creating a winner-take-most
    dynamic in some markets.
  - Data is now a critical corporate asset. It comes from the web, billions of phones, sensors, payment systems, cameras, and a huge array of other sources, and its value is tied to its ultimate use. While data itself will become increasingly commoditized, value is likely to accrue to the owners of scarce data, to players that aggregate data in unique ways, and especially to providers of valuable analytics.
  - Data and analytics underpin several disruptive models. Introducing new types of data sets ("orthogonal data") can disrupt industries, and massive data integration capabilities can break through organizational and technological silos, enabling new insights and models. Hyperscale digital platforms can match buyers and sellers in real time, transforming inefficient markets. Granular data can be used to personalize products and services and, most intriguingly, health care. New analytical techniques can fuel discovery and innovation. Above all, data and analytics can enable faster and more evidence based decision making.
  - Recent advances in machine learning can be used to solve a tremendous variety of problems and deep learning is pushing the boundaries even further. Systems enabled by

machine learning can provide customer service, manage logistics, analyze medical records, or even write news stories. The value potential is everywhere, even in industries that have been slow to digitize. These technologies could generate productivity gains and an improved quality of life along with job losses and other disruptions. Previous MGI research found that 45% of work activities could potentially be automated by currently demonstrated technologies; machine learning can be an enabling technology for the automation of 80% of those activities. Breakthroughs in natural language processing could expand that impact even further.

Data and analytics are already shaking up multiple industries, and the effects will only become more pronounced as adoption reaches critical mass. An even bigger wave of change is looming on the horizon as deep learning reaches maturity, giving machines unprecedented capabilities to think, problem-solve, and understand language. Organizations that are able to harness these capabilities effectively will be able to create significant value and differentiate themselves, while others will find themselves increasingly at a disadvantage.

# 5. Internet of things

Enterprise IoT is gaining momentum Although enterprise IoT is a relatively new development, 98% of survey respondents reported that most companies within their industry include enterprise IoT initiatives in their strategic road maps, including those related to improving service operations, increasing visibility into operations, enabling new business models, and creating new product and service offerings as shown in Figure 5.

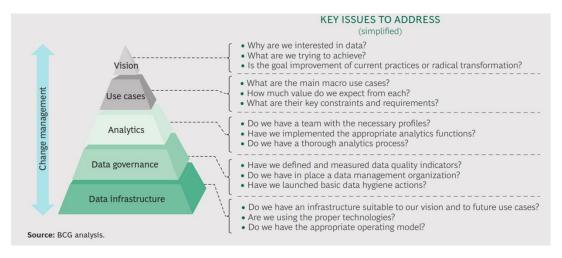


Figure 5: Leveraging data requires a comprehensive model [5].

Examples of new programs in IoT areas abound. For instance, an elevator company is creating a suite of IoT-enabled services to improve the reliability of its products and decrease downtime.

In addition to lowering operating costs for the company's customers, these applications could potentially transform its business model.

To better understand the current state and future trend of IoT in operations and manufacturing McKinsey and Company conducted a survey on corporate views regarding IoT. The survey respondents had a favorable view of enterprise IoT's increased importance, with 92% stating that it would have a positive impact over the next three years, either by improving operations or by allowing companies to develop new products with embedded IoT capabilities. The latter development could eventually translate into higher revenues. Equally important, 62% of respondents stated that enterprise IoT's impact will either be very high or transformative. That means it could produce many more benefits than the modest improvements seen to date. Respondents also noted that top executives recognized IoT's potential value, with 48% reporting that company leaders either strongly supported or were directly engaged in IoT initiatives. Enterprise IoT could produce the greatest benefits in manufacturing and service operations Enterprise IoT can help improve multiple functions. When asked which department would benefit most, 40% of survey respondents cited service operations and 30% chose manufacturing, making them the clear leaders as shown in Figure 6 and 7 [6].

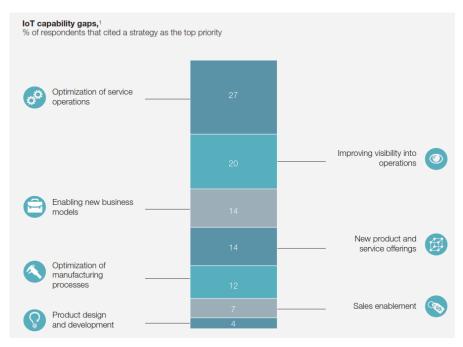


Figure 6: Executives identified many strategic priorities for the Internet of Things (IoT) [6].

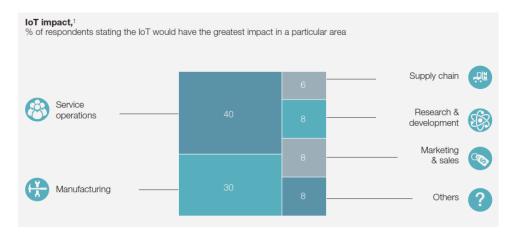


Figure 7: Survey respondents believe the Internet of Things (IoT) would convey most value to manufacturing and service operations [6].

For service operations, respondents believed that enterprise IoT would produce the most value in three areas: diagnostics and prognostics, predictive maintenance, and monitoring and inspection. In manufacturing, the top use cases were resource and process optimization (for instance, improving yield, throughput, or energy consumption), asset utilization, and quality management.

Challenges persist in enterprise IoT Despite these encouraging findings; the survey uncovered some reasons for concern; particularly with respect to how companies are using IoT data. Respondents agreed that information from IoT sensors was valuable, with 60% stating that it provides significant insights, such as data on customer demographics or shopping patterns. But an almost equal number (54%) claimed that companies used 10% or less of this information. These findings are consistent with the evidence we have seen in the field. At one gas rig, for instance, managers only used 1% of data from the ship's 30,000 sensors when making decisions about maintenance planning.

The survey from McKinsey and Company also uncovered serious capability gaps that could limit enterprise IoT's potential. Some of these related to the sensor data discussed above, with survey respondents reporting that businesses often struggle with data extraction, management, and analysis as shown in Figure 8. But there were also significant capability problems in other areas. For instance, 70% of respondents stated that companies have not yet integrated IoT solutions into their existing business work flows; in other words, they are not using enterprise IoT to optimize day-to-day tasks. Respondents also noted that companies had difficulty identifying use cases for enterprise IoT applications and conducting end-to end prototyping for connected products.

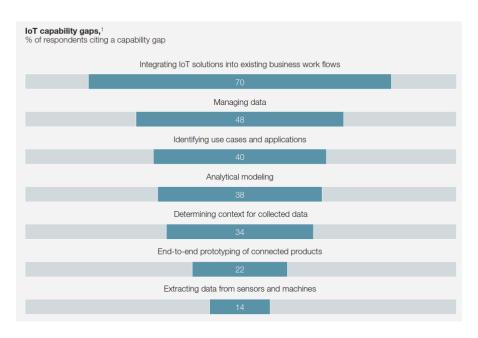


Figure 8: Companies have many capability gaps related to the Internet of Things (IoT) [6].

Addressing capability gaps may be challenging because companies often concentrate on piloting a single enterprise IoT program. With such a narrow focus, they do not consider the big picture, including the organizational capabilities and change-management programs required for the rollout of large-scale initiatives. This problem may become less intense as more business leaders begin recognizing enterprise IoT's value and place more emphasis on capability building. There is confidence that more companies will make a greater effort to incorporate enterprise IoT into their daily operations as its benefits become clearer. A few have already reported strong gains by moving in this direction. For example, Boeing workers now use IoT wearables and augmented-reality tools on wiring-harness assembly lines, which have resulted in up to 25% improvement in productivity.

# 6. Cyber-physical system:

Since 1970s there have been rapid advancements in computing hardware and software which have provided a basis for a continuing development of novel manufacturing methods, better decision making (based on models) in management of manufacturing processes and the supply chain, as well as paradigm-altering computing and communication devices which we encounter in our daily lives. This new manufacturing paradigm started with stand-alone computer applications which paved the way for the integration of manufacturing equipment with computer-based decision-making applications. Presently a vast change is underway in all aspects of the societal infrastructure and the way we live. Physical world, real space within which we reside is being increasingly augmented by its representation in digital software models, data and inferences engines which reside in various forms of computing systems. New

domains of knowledge, which are being continuously discovered in this digital world, require new capabilities for engineering graduates.

The cyber-physical world is becoming a reality, comprised of a variety of cyber-physical systems as shown in Figure 9. Cyber-physical systems as shown in Figure 10, are characterized by a physical asset (e.g. machine) and its digital twin, i.e. a model which mimics the behavior of the physical asset. They are comprised of integrated, hybrid networks of cyber and engineered physical elements. They are co-designed and co-implemented to create adaptive and predictive systems which respond in real time to enhance the performance. Note that the Internet of Things (IoT) is a subset of cyber-physical systems, since its prevailing definition limits it to the physical assets, not including their digital models.

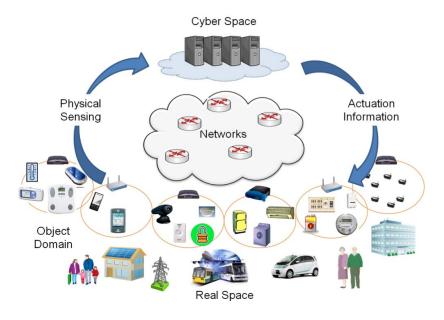


Figure 9: Cyber-physical world [7].

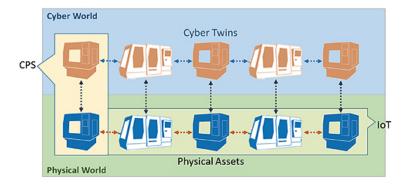


Figure 10: A cyber physical system is comprised of a physical asset and its software model [8].

A new era of integrated cyber-physical manufacturing systems has begun, requiring engineering graduates to have professional and technical capabilities which have not been associated with the traditional engineering disciplines. In other words, an engineer ready for the 21<sup>st</sup> century needs to have the knowledge and capabilities required to understand, design, and improve systems which are comprised of humans interacting with both physical and cyber components. Terms "Industry 4.0" and "Advanced Manufacturing" have been coined to designate such manufacturing systems.

Cyber-physical systems can be viewed from two vantage points:

- System structure, which has a lot of characteristics common across different domains. This
  is reflected in modeling methodologies and algorithms for optimization of the system
  performance.
- Technology required to build such systems, including the technologies specific to a given domain (e.g. internal combustion or electric engines in automotive).

#### The Case for Canada

In 2016, CME (Canadian Manufacturers & Exporters) conducted several surveys and consultation sessions with leaders of manufacturing organizations Canada wide. The purpose of these projects was to understand and define a strategy (shown in Figure 11), named "Industry 2030, a national strategy", which was aimed at identifying what would be required to enable Canadian manufacturers to double the sales output by 2030 [9].

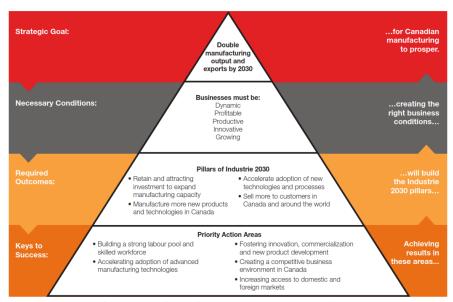


Figure 11: The Industry 2030 strategy roadmap [9].

The overall proposed strategy focuses on five points:

- a. Building a strong and skilled workforce for growth.
- b. Accelerating the adoption of advanced manufacturing technologies.
- Fostering innovation, commercialization and new product development in Canadian markets.
- d. Manufacturing a competitive business environment in Canada.
- e. Increasing sales in domestic and foreign markets.

Technology, global competition, and customer expectations are also shaping the evolution of our industry, our workforce, and what products and services we ultimately offer. The pace of change is getting faster, and we need to do more than simply keep pace, or we run the risk of being left behind.

Manufacturing leaders rank skills and labour shortages as the most important issues they face today [9]. This message came through loudly and clearly from both the Industry 2030 consultations, as well as from the results of the 2016 Management Issues Survey. Specifically, executives noted deep concern both about the availability of workers as well as the skill level of existing and future employees at all levels of the organization. These skills gaps are undermining the current performance and future growth of their companies. Today, Canadian manufacturers directly employ 1.7 million people throughout their domestic operations. The skills of the workforce range from general labourers, to skilled tradespeople, to designers, to sales and service representatives, to management. However these skills sets are constantly being redefined as technology and business opportunity reshape the business of manufacturing. Technology is changing both the type of workers being used – a shift from general labour to specialized work – and the type of skills that are needed - from single-skilled and repetitive to multi-skilled and flexible. Technology is also impacting the type of products and services being offered, as well as how manufacturers operate; instead of merely building and selling a product in a local or regional market, businesses are now offering a range of customer services that are anchored around a manufactured product. Jobs are becoming more multi-skilled and specialized, and they are growing more valuable and less interchangeable. As a result, workers are becoming more difficult to find and harder to replace.

In Canada there exist significant gaps in talent in highly-educated and skilled population. According to the results of the 2016 Management Issues Survey, roughly 40 per cent of businesses face labour and skills shortages today. Five years from now, close to 60 per cent anticipate such shortages as shown previously in Figure 12.

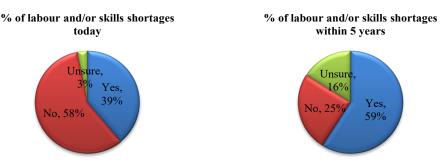


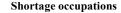
Figure 12: Immediate and future skilled labour shortages in industry [9].

These shortages stem from three primary sources:

- 1. An inability to attract youth into skilled trades relevant to manufacturing;
- 2. A disconnect between the formal training system and industry needs
- 3. An aging workforce.

These shortages are driving up costs, undermining productivity and eroding our global competitiveness. This is causing businesses to forego production opportunities and delay investment. In some cases, shortages of skilled workers are causing companies to consider relocating their operations outside Canada in order to sustain production. Skills shortages are also causing companies to under-invest in a range of advanced manufacturing technologies because their workers do not have the necessary technical skills, thus limiting manufacturers' ability to use these technologies to their fullest potential. Simply put, a lack of a sufficiently-sized and skilled labour pool is directly impacting the growth of manufacturing in Canada today, and will continue to restrict growth moving forward if substantial changes are not made.

Another issue repeatedly arose in the Industry 2030 consultations: the deficit of manufacturing leadership in Canada. While Canada does create great leaders, there are not enough of them. Leadership gets to the heart of manufacturing strategy and entrepreneurship. It affects how companies operate, how they invest, how they create new products and open new markets. It also affects how manufacturers train and develop their workforce. There is a major lack of capacity in training the next generation of innovative manufacturing leaders (in all levels of organizations) with up to date and applied skill sets. The distribution of labour and skills shortage is widespread, and thus a main incentive for companies to refocus on performance and efficiency, and the first consideration for their decision-making process for investments as shown in Figures 13 and 14.



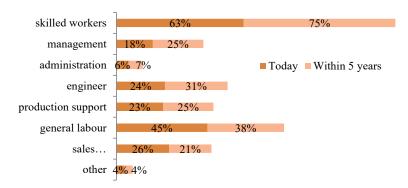


Figure 13: Occupational distribution in skilled labour shortages in industry [9].

#### How businesses address skilled labour shortages

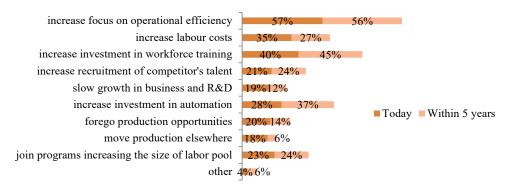


Figure 14: Response from industry to skilled labour shortages [9].

As part of the strategy to address the issues pertaining to building a strong and skilled workforce for growth, CME proposed the following set of general recommendations:

- Increase the effective engagement of youth, women and under-represented groups in the
  manufacturing labour force. Programs such as "open doors" that introduce
  underrepresented groups to opportunities in manufacturing should be expanded nationwide. Post-secondary science, technology, engineering and mathematics (STEM) training
  also needs to be improved, with an increased emphasis on workplace-focused technical,
  social and safety skills.
- Improve linkages between industry and post-secondary institutions. Manufacturers need to
  work more closely with educators to develop and fine-tune program curricula, as well as
  to offer feedback on the skills that recent graduates bring to the table so that curriculum
  adjustments can be made in a timely, relevant manner. The network of work-integrated

Template Updated: January 2019

Page 19

learning programs across Canada needs, to be expanded to create better pathways to the development of work-related skills and ensure a better match between education and manufacturing workforce needs, including increased corporate participation and government support through incentives aimed at student wages.

- Expand supports for business-led training and management leadership. Better the Canada Job Grant, by increasing the program funding size and making it permanent (multi-year training, more on-the-job training, Industry 4.0, LEAN manufacturing...). Canadian manufacturers should work with post-secondary institutions to create new programs to support management training. The emphasis of these programs should be entrepreneurship, leadership (at the group and company level), operations management, LEAN techniques, and combined technical and management training (such as combined engineering and MBA programs).
- Improve access to foreign-trained skilled workers.

In addition, manufacturers have found that young graduates are not armed with the skillset they require to be integrated into industry. As a consequence, the average time to develop a new hire is reported as 2 years and is deemed too long. It is thus crucial that post-secondary curriculums be better aligned and emphasizes multi-disciplinary skills rather than specialization [10].

# 1.2 PROPOSAL PREPARATION AND CONSULTATION PROCESS

Not applicable.

#### 1.3 CONSISTENCY WITH MCMASTER'S MISSION AND ACADEMIC PLAN

# i. McMaster's Strategic Mandate Agreement:

This Certificate of Completion will strengthen the relationship between McMaster and local industry.

# ii. McMaster's current priorities

The goal of the proposed certificate of completion is to transfer the latest technologies in operations leadership to the local community of businesses. The primary learning mode will be experiential learning, particularly during the workshops in which hands-on role play type activities will give the students the time and opportunity to practice in a safe environment what they have learned during the classes.

#### 1.4 PROGRAM LEARNING OUTCOMES

Upon completion of the Certificate of completion the student will have acquired the knowledge and practical skills to:

PLO #1. Develop a fundamental understanding of plant automation components and architecture.

PLO #2. Select, install and use various plant instruments such as pressure, level, temperature, and flow measuring devices, and control valves.

PLO #3. List the main components of Allen-Bradley Logix5000 Controllers and the RSLogix5000 software.

PLO #4. Create basic and advanced PLC programs using ladder logic, function blocks, structured text, and SFC.

PLO #5. Understand and architect common industrial communication networks

PLO #6. Design, configure and implement SCADA systems, HMI, OPC servers and clients

# 1.5 CONSISTENCY WITH DEGREE LEVEL EXPECTATIONS

Not applicable.

#### 1.6 DEMAND FOR THE PROGRAM

# EVIDENCE OF SOCIETAL/LABOUR MARKET NEED

Note: Some elements of this were mentioned previously in section 1.1. After a brief review, this section will present some data about the status of the labour market.

The CME conducts a biannual management survey across Canada, in order to get into the mindset, aspirations and concerns of manufacturers. The demographics of the survey are shown in Figure 15.

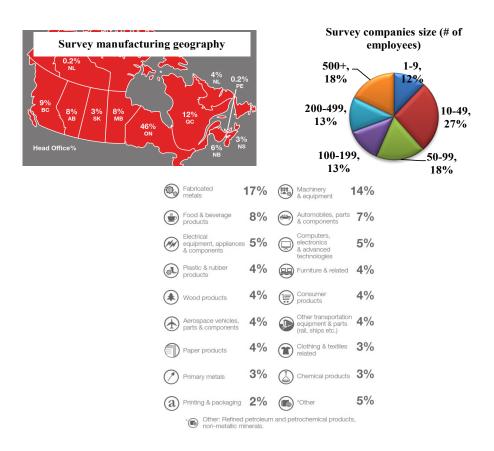


Figure 15: Distribution of survey respondents, companies' sizes and industrial sectors [10].

From the management survey, 2 of the top 5 concerns are finding a skilled and quality labour workforce, and the adoption and implementation of new technology to promote innovation. Overall, 4 main actions were identified as essential for the future of manufacturing in Canada from a management perspective, 2 of which are more of interest:

- Labour, skills and training: Manufacturers want improvements to the suite of programs
  available for in-house training, and they want more financial support for that training. They
  also want governments to work with post-secondary institutions to improve existing
  training programs and to expand work-integrated learning programs in Canada.
- Innovation and technology adoption: Uptake of advanced manufacturing technologies in Canada is low, but businesses want to reverse that trend. Respondents believe tax credits and other incentives will help offset investment risks. They also want more opportunities to examine and test these technologies.

In summary, the concerns of companies from a manpower perspective are aligned with the identified needs and requirements of manufacturing in Canada to be competitive; there is an urgent need to develop a training platform aligned between post-secondary institutions and industry to educate and develop a skilled and quality workforce which can be seamlessly integrated by industry. A particular attention needs to be given to the training of employees and managers on tools and techniques pertaining to Industry 4.0, such as Artificial Intelligence, as they are the first enablers and engagers of the work force, particularly in the adoption of new technologies.

In addition, one cannot ignore the dramatic shift in societal needs which is the natural evolution following the innovations in technology trends. For example, the following table presents the shift in demand of the top 10 jobs that has occurred within the last 15 years. This data was gathered from many sources around the world (Forbes, globe and mail, World economic Forum, Statistics Canada, monster...).

Table 1: change in demand for top jobs for the past 15 years.

15 years ago	Now	
Administrative assistant	Online community manager/chief listening officer	
Sales clerk	Sustainability manager	
Teacher	Educational/admission consultant	
Transportation operator	Data miner	
Hospitality manager	Millennial generational expert	
Medical assistant	Cloud computing/IT architecture expert	
Investment banker	Engineering technician	
Mechanic	User experience manager	
Real estate agent	Manufacturing functions (quality, supply chain)	
Social worker	Elder care	

Complementary to the change in job demand, studies have shown that the skill set required for employees to thrive in the fourth industrial revolution, is expected to shift as shown in Figure 16.

# Top 10 skills

# in 2020

- 1. Complex Problem Solving
- 2. Critical Thinking
- 3. Creativity
- 4. People Management
- 5. Coordinating with Others
- 6. Emotional Intelligence
- 7. Judgment and Decision Making
- 8. Service Orientation
- 9. Negotiation
- 10. Cognitive Flexibility

# in 2015

- 1. Complex Problem Solving
- 2. Coordinating with Others
- 3. People Management
- 4. Critical Thinking
- 5. Negotiation
- 6. Quality Control
- 7. Service Orientation
- 8. Judgment and Decision Making
- 9. Active Listening
- 10. Creativity





Source: Future of Jobs Report, World Economic Forum

Figure 16: changes in skill set required for industry [11].

In addition, SEPT already has a past history of developing industry specific programs for employees such as the Technology Leadership Certificate.

# 1.7 DEGREE NOMENCLATURE

Not applicable.

# 2 ADMISSION & ENROLMENT

# 2.1 ADMISSION REQUIREMENTS

Applicants with a 4 year undergraduate degree in engineering or science, as well as applicants with an advanced 3-year college diploma will be admitted to the Certificate of completion. A letter of support from the applicant's employer will also be required.

# 2.2 ENROLMENT PLANNING AND ALLOCATIONS

Not applicable.

# 2.3 ALTERNATIVE REQUIREMENTS

Not applicable.

Template Updated: January 2019 Page 25

# 3 STRUCTURE

# 3.1 ADMINISTRATIVE, GOVERNANCE AND COMMUNICATION

The proposed program resides within the W Booth School of Engineering Practice and Technology; a School within the Faculty of Engineering. The School is led by a Director who reports to the Dean of Engineering. The Director of the School serves a 5-year term and is appointed by the Senate. The program will be lead and administered by a program leader reporting to the director of the school.

# 3.2 STRUCTURE AND REGULATION

#### **Program Structure**

The proposed certificate of completion will provide participants with technical and professional capabilities. In order to successfully complete the Program, the students must complete the following four courses.

- 1. Instrumentation and Control
- 2. Introduction to PLC Programming
- 3. Advanced PLC Programming
- 4. SCADA and Industrial Networks

Each course will include 32 hrs of lecture and lab with 60% of hands on experience. The certificate of completion can be completed within 3 to 4 months.

The courses will be scheduled in 'blocks' of time which are intended to make the Certificate of completion more appealing and accessible to working professionals as well as for students who want to have an intensive and expedited training in the summer.

# 3.3 GRADUATE PROGRAMS - PROGRAM LENGTH

Not applicable.

# 4 CURRICULUM AND TEACHING

# 4.1 PROGRAM CONTENT

The "Automation Systems: Architecture & Programming" Certificate of completion is focused on engaging and enabling its graduates to acquire and practice the knowledge, technical background, and competencies that are required to implement and design modern automation systems that comply with Industry 4.0.

The latest industrial automation hardware and software will be addressed in the corresponding courses. Recent industrial trends will be emphasized.

# 4.2 PROGRAM INNOVATION

The program will offer the students with extensive hands-on training on commonly used industrial automation systems hardware and software. Students will be exposed to a blended learning environment in which on classes rely on extensive use of computer-based simulation tools combined with the theory underpinning them. All courses will have a lab component where the students will be trained on the state-of-the art hardware and software. Lecture notes will be provided to the students prior to class, the lecture time will mostly be used for real-life case studies and problem solving.

# 4.3 MODE(S) OF DELIVERY

The coursework will be offered via a blend of on-line, in-class, and laboratory delivery. The hands-on and lab component will form at least 60% of each course.

The courses will be scheduled in 'blocks' of time which are intended to make the Certificate of completion more appealing and accessible to working professionals as well for students who want to have an intensive and expedited training in the summer.

#### 4.4 EXPERIENTIAL LEARNING

The program is uniquely defined through a strong experiential learning component. Each course is specifically oriented towards problem-solving, the intensive workshops provide a hands-on learning experience and courses emphasize a "learn-by-doing" approach. Work on industry or civic oriented problems will provide further opportunities for experiential learning by solving problems encountered in real industry situations.

#### 4.5 ACCESSIBILITY

The program supports an environment in which race, age and gender are irrelevant. The program is focused on helping students to attain the level of capabilities corresponding to their role and function irrespective of their abilities or disabilities.

# 4.6 RESEARCH REQUIREMENTS (IF APPLICABLE)

Not applicable

Template Updated: January 2019 Page 27

# 5 ASSESSMENT OF LEARNING

# 5.1 METHODS FOR ASSESSING STUDENTS

Student assessment during the course of the Program will be based on demonstrated learning outcomes in each course. Assessments in the courses will be based on

- Assignments
- Demonstrated learning during workshop
- Questionnaire

# 5.2 CURRICULUM MAP

Program Learning Outcome			
By the end of the program,	Expectations	Teaching activities	Assessments &
students will		& learning	evidence
DI C #1 D	1 1 0 1 11 0	opportunities	
PLO #1. Develop a	depth & breadth of	online and in-class	Assignments,
fundamental understanding	knowledge	lectures, case	questionnaires, and
of plant automation	application of	studies, assignments, lab exercises	activity during the
components and architecture.	knowledge	lab exercises	workshops.
PLO #2. Select, install and	donth & broadth of		
use various plant	depth & breadth of knowledge		
instruments such as	application of		
pressure, level, temperature,	knowledge		
and flow measuring	kilowiedge		
devices, and control valves.			
PLO #3. List the main	Problem solving		
components of Allen-	application of		
Bradley Logix5000	knowledge		
Controllers and the			
RSLogix5000 software.			
PLO #4. Create basic and	Problem solving		
advanced PLC programs	application of		
using ladder logic, function	knowledge		
blocks, structured text, and			
SFC.	D. 1.1 11.		
PLO #5. Understand and	Problem solving		
architect common industrial communication networks	application of knowledge		
Communication networks	Knowledge		
PLO #5. Understand and	Problem solving		
architect common industrial	application of		
communication networks	knowledge		
	S		

# 5.3 DEMONSTRATING STUDENT ACHIEVEMENT

The assessment tasks will be designed to measure the achievement of program and course level learning outcomes throughout the program and will be embedded into each course.

The following assessment tools will be used to measure student achievements: assignments, and questionnaires. These will be graded using the McMaster University grading system.

The data collected from each of these activities will be analysed using a variety of methods that are currently used in the department.

We will be conducting a survey of students asking them to reflect on their learning experiences. A similar survey of faculty and the students' respective organizations will also be conducted to assess the achievement of learning outcomes by the students and their efforts to provide activities for assessment of the learning outcomes, levels of achievement, and any associated challenges.

Template Updated: January 2019

Page 29

# 6 RESOURCES

# ADMINISTRATIVE, PHYSICAL AND FINANCIAL RESOURCES

The Program will be hosted by the W.Booth School of Engineering Practice. The School has administrative staff experienced in the operation of graduate, undergraduate and industry oriented programs. The Director of the School is responsible for the programs offered by the School. Day to day operation of the programs will be managed by a Program Leader who will assume the responsibility for the management of the new program.

The program will be funded from the courses fees. Immediately after the program is approved, the School will start implementing a marketing program which will be prepared in advance in cooperation with the marketing group in the Faculty of Engineering.

At the time of processing applications for the first cohort (expected in 2019/2020) of approximately 20 accepted students, it is anticipated the Program Leader will be responsible for the administrative tasks related to this Certificate of completion. The need for admin support will be assessed in future years of the program.

The delivery of the program will use sessional lecturers with very specific and relevant industry experience. This will likely include the Program Leader which will also be a contract position.

SEPT physical space in ETB building will be used to provide a working and teaching space for the students and instructors.

Mohawk resources will be used as well as required.

#### LIBRARY, TECHNOLOGY, AND LABORATORY RESOURCES

Library facilities in the traditional sense (books and journals on the shelves and space to sit and read them in the library) are not needed by the Program. On-line availability of existing journals and books will provide students with access to the material required for their course work.

W. Booth School of Engineering Practice and Technology has a unique Learning Factory which will be used as sand box for role plays, case scenario study, and learning environment for Industry 4.0.

# **Learning Factory (Industry 4.0)**

SEPT is currently creating a Learning Factory which will provide hands-on learning of systems and components which constitute Industry 4.0. Most of the required equipment is already available at SEPT and we are confident that this learning facility will be ready well before 2019/2020.

The Learning Factory will provide integration from enterprise planning level to the production equipment. It will include prototyping tools, actual cyber-physical systems examples (discrete manufacturing, continuous manufacturing, smart homes/buildings, smart grid, and smart transportation). A simplified representation of the Learning Factory is given in Figure 17.

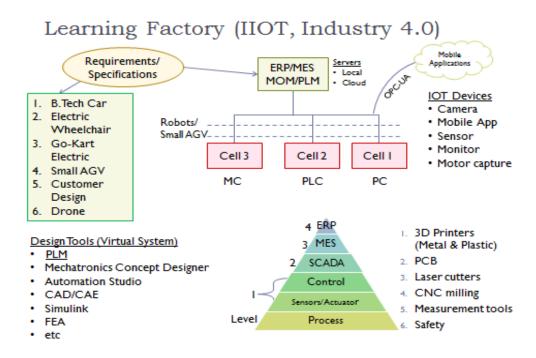


Figure 17: Simplified representation of the Learning Factory [12].

# **FACULTY**

The proposed program has been budgeted using sessional lecturers. However, several current SEPT Faculty members may fill teaching roles within the Certificate of completion as appropriate.

Table 2 Faculty Members for W. Booth School of Engineering Practice and Technology who may teach courses with the Certificate Program

Name	Rank	M/F	Dept.
Vladimir Mahalec	Professor	M	SEPT
Mostafa Soliman	Assistant Professor	M	SEPT
Tom Wanyama	Assistant Professor	M	SEPT
Zhen Gao	Assistant Professor	M	SEPT

# STUDENT FINANCIAL SUPPORT

The program will not offer financial support to the students.

FACULTY RESEARCH FUNDING - NOT APPLICABLE; THIS IS NOT A RESEACH PROGRAM

# 7 QUALITY AND OTHER INDICATORS

# 7.1 ACADEMIC QUALITY OF THE PROGRAM

This certificate of completion will be added to the school's IQAP process.

# 7.2 INTELLECTUAL QUALITY OF THE STUDENT EXPERIENCE

The fundamental nature of the program based on problem solving of real issues the students are facing, improvement of their work area, and interaction with peers from other sectors should encourage 'crosspollination' of knowledge and experience.

SEPT Faculty have been recognized as having one of the highest student ratings in the Faculty of Engineering, which is a clear indication of their ability to engage students and create an engaging working environment.

In addition to the classes, the students will be able to participate in the social activities in SEPT. Remotely located students will be able to interact with their colleagues via social media platforms (e.g. Facebook group for each class is a tradition at SEPT).

Template Updated: January 2019 Page 32

# **8 REFERENCES**

- 1. Defalco, F. "INDUSTRY 4.0 . . . The Next Industrial Revolution", *Canada Makes*. Web. January 2, 2018 http://canadamakes.ca/industry-4-0-next-industrial-revolution/.
- 2. Ammi, B., Khatoun, R., Zeadally, S., Fayad, A., and Khoukhi, L. (2017). "Internet of Things (IoT) Technologies for Smart Cities." *IET Networks*. 7.
- 3. Behrendt, A., Muller, N., Odenwalder, P., and Schmitz, C. "Industry 4.0 Demystified Leans Next Level." *McKinsey & Company*. Web. March, 2017 <a href="https://www.mckinsey.com/business-functions/operations/our-insights/industry-4-0-demystified-leans-next-level">https://www.mckinsey.com/business-functions/operations/our-insights/industry-4-0-demystified-leans-next-level</a>.
- Baur, C., Wee, D. "Manufacturing's Next Act", McKinsey & Company. Web. June 2015 <a href="https://www.mckinsey.com/business-functions/operations/our-insights/manufacturings-next-act">https://www.mckinsey.com/business-functions/operations/our-insights/manufacturings-next-act</a>
- 5. Gourevitch, A., Fauste, L., Baltassis, E., Marx, J. "Data Driven Transformation: Accelerate at Scale Now." *Boston Consulting Group*. Web. May 23, 2017 <a href="https://www.bcg.com/publications/2017/digital-transformation-transformation-data-driven-transformation.aspx?linkId=45057569&redir=true">https://www.bcg.com/publications/2017/digital-transformation-transformation-data-driven-transformation.aspx?linkId=45057569&redir=true</a>
- Chui, M., Ganesan, V., Patel, M. "Taking the Pulse of Enterprise IoT." McKinsey & Company. Web. July, 2017 <a href="https://www.mckinsey.com/featured-insights/internet-of-things/our-insights/taking-the-pulse-of-enterprise-iot">https://www.mckinsey.com/featured-insights/internet-of-things/our-insights/taking-the-pulse-of-enterprise-iot</a>
- 7. Roarke, E., "Cyber-Physical Systems." *Device-Smart.com*. March 5, 2014 <a href="https://devicesmart.wordpress.com/tag/cyber-physical-systems/">https://devicesmart.wordpress.com/tag/cyber-physical-systems/</a>
- 8. Bagheri, B., and Lee, J. "Big Future for Cyber-Physical Manufacturing Systems." *Design World*. September 23, 2015 <a href="https://www.designworldonline.com/big-future-for-cyber-physical-manufacturing-systems/">https://www.designworldonline.com/big-future-for-cyber-physical-manufacturing-systems/</a>
- 9. Canadian Manufacturers & Exporters. "Industry 2030, A National Strategy". November, 2018.
- 10. Canadian Manufacturers & Exporters. "Industry 2030, Management Issues Survey 2016". 2016.
- 11. World Economic Forum. "The 10 Skills You Need to Thrive in the 4<sup>th</sup> Industrial Revolution." <a href="https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/">https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/</a>

Physical Systems Lea	rning Centre." In: Auer M., Z	ork for the Development of a Cyber- utin D. (eds) <i>Online Engineering &amp;</i>
internet of Inings. Le	ecture Notes in Networks and	Systems, voi 22.
Template Updated: January 2		Page 34



**TO:** Christi Garneau, University Secretary

FROM: Anna Moro, Director, MELD Programs

SUBJECT: MELD Community Outreach/Alternate Pathway Pilot (MELD Community Award Program)

**DATE:** 22 January 2019

CC: Ken Cruikshank, Dean, Humanities; Melissa Pool, Registrar; Marcy Murchie, DFA, Humanities;

Claudia Huelgas, MELD Program Administrator

The MELD Program has been working with the University Access Development Coordinator, Jeff Wingard, to open the MELD program to a limited number of students (ten) in need from the City of Hamilton, who could benefit from completing an intensive ESL bridging program. Eligible students will submit an application package, including a Statement of Interest and a Letter of Recommendation, to the "MELD Community Access Award", which would amount to a full tuition and supplementary fees waiver. Community partners have been identified, and the initiative has been enthusiastically welcomed. MELD program representatives and other university stakeholders (Financial Aid, Registrar's Office) have worked together to finalize the application process for this pilot project.

For the purpose of the pilot, we would like to make MELD fully accessible to prospective candidates. Typically, students can only register in MELD if they are successful in obtaining an offer (a conditional offer pending the successful completion of the program) to their program of interest. While we will encourage students applying to this pathway to pursue this option, we can also imagine situations in which a prospective student could benefit from the MELD program, without necessarily being able to commit to undergraduate studies at McMaster immediately afterwards. We believe that the MELD Community Access Award should allow full accessibility in the pilot year, in order to encourage candidates in diverse situations to apply.

For the 2019-20 academic year, consequently, the MELD program may include a few students who do not contemporaneously have a conditional offer to an undergraduate program at McMaster.

The issue of full accessibility will be revisited next year.



UNIVERSITY SECRETARIAT

Board of Governors

Senate

Gilmour Hall, Room 210 1280 Main Street West Hamilton, Ontario, Canada Phone: 905.525.9140, Ext. 24337 Fax: 905.526.9884 E-mail: univsec@mcmaster.ca http://www.mcmaster.ca/univsec

# REPORT TO UNDERGRADUATE COUNCIL FROM THE UNDERGRADUATE COUNCIL EXECUTIVE COMMITTEE

#### FOR INFORMATION

# I Terms of Award

On February 5, 2019, the Undergraduate Council Executive Committee approved via electronic vote, on behalf of Undergraduate Council, four new awards, changes to twenty-three terms of awards, three new bursaries, and the removal of nine awards from the Undergraduate Calendar. The material was also approved by the Awards Committee. Details of the above are contained in Attachment I of the circulated report.

# II Ad Hoc Committee Membership Lists

On February 5, 2019, the Undergraduate Council Executive Committee approved via electronic vote, on behalf of Undergraduate Council, membership lists for the Ad Hoc Committee on Deferred Examinations and the Ad Hoc Committee on Certificates, Diplomas, and Micro Credentials. Details of the membership lists are contained in Attachment II of the circulated report.

**Undergraduate Council** March 5, 2019



# OFFICE OF THE REGISTRAR, STUDENT FINANCIAL AID & SCHOLARSHIPS To Undergraduate Council Executive Committee From Undergraduate Council Awards Committee January 31, 2019

#### PROPOSED NEW AWARDS FOR APPROVAL

#### **Entrance Awards**

# The Columbia International College Community Leader Award

Established in 2018 by McMaster University to recognize students who demonstrate leadership qualities and a commitment to community involvement. A variable number to be awarded to students entering Level I from Columbia International College.

Value: \$5000

#### The Provost Entrance Scholarship for International Students

Established in 2018 by McMaster University to recognize the academic achievements of international students. A variable number to be awarded to visa students entering Level I.

Value: \$5000

#### In-Course and Renewal Awards

#### The Kilpatrick Scholarship in English

Established in 2018 from the estate of Eleanor Jean McLeish. To be awarded to undergraduate students enrolled in a Level I program in the Faculty of Humanities who attain high grades in one or more Level I English courses. Value: \$4000

# Submitted by the Faculty of Health Sciences

# The Kilpatrick Scholarship in Medicine

Established in 2018 from the estate of Eleanor Jean McLeish. To be awarded to students enrolled in the Michael G. DeGroote School of Medicine who best exhibit academic excellence and demonstrate financial need.

# **CHANGES TO AWARD TERMS FOR APPROVAL**

#### The Frank E. Jones Prize

Established in 1982 in honour of Professor F.E. Jones for his outstanding contributions to the Department of Sociology. To be awarded to the student with the highest Grade Point Average in an Honours program in Sociology. full-time graduating students who have completed a program in Sociology with high averages.

# **The Ruth Landes Prize**

Established in 1982 in honour of Professor Ruth Landes for her outstanding contributions to the Department of Anthropology. To be awarded to a graduating students in a program in Anthropology who has demonstrated outstanding academic achievement. have completed a program in Anthropology primarily on a part-time basis with high averages.

#### The P. L. Newbigging Prize

Established in 1982 in recognition of Dr. Lynn Newbigging for his outstanding contributions to the Department of Psychology, Neuroscience & Behaviour (Faculty of Science). Four prizes to be awarded to students with the highest—Grade Point Average: a.—one to a student enrolled full-time in the three-level B.A. program in Psychology; b.—one to a student in a B.A. program in Psychology who has completed the program primarily on a part-time basis; c.—one to a student enrolled full-time in the three-level B.Sc. program in Life Sciences with a concentration in Psychology; and d.—one to a student in a B.Sc. program in Life Sciences with a concentration in Psychology who has completed the program primarily on a part-time basis. graduating from a program in the Department of Psychology, Neuroscience & Behaviour with high averages.

Q:\AWARDS\UCAC\_UGC\2019\UGC Jan.29\_final.docx

Page 1 of 4



# OFFICE OF THE REGISTRAR, STUDENT FINANCIAL AID & SCHOLARSHIPS To Undergraduate Council Executive Committee From Undergraduate Council Awards Committee January 31, 2019

#### The Pioneer Energy LP Gerontology Prizes

Established in 1988 by the Pioneer Group Limited. Two prizes to be awarded (a) one to a student enrolled full-time and (b) one to a part-time student, both of whom are graduating from a program in Gerontology who, in the judgment of the Department of Health, Aging and Society, have demonstrated high academic achievement and leadership in extracurricular activities. To be awarded to students graduating from a program in the Department of Health, Aging and Society, who in the judgment of the Department, demonstrate leadership in the field of Gerontology.

# The Pioneer Energy LP Prize in Aging and Society

Established in 1990. To be awarded to a student in an Gerontology Aging and Society program who, in the judgment of the Department of Health, Aging and Society, has achieved notable academic standing, and demonstrates practical aptitude for a career in health care of the elderly.

#### The Pioneer Energy LP Scholarship in Gerontology

Established in 1988. To be awarded to students enrolled in Level 2 or above of a program in Gerontology and who, in the judgment of the Department of Health, Aging and Society, have achieved high standing in 12 units of Gerontology courses (excluding GERONTOL 1A03) and who demonstrate leadership in the field of Gerontology. who in the judgment of the Department, demonstrate leadership in the field of Gerontology.

#### **The Political Science Prize**

Established in 1982.To be awarded to a-graduating students who has have completed a program in Political Science primarily on a part-time basis and who, in the judgment of the Department of Political Science, has demonstrated outstanding academic achievement with high averages.

#### **The Lloyd Reeds Prizes**

Established in 1983 in recognition of Dr. Lloyd G. Reeds for his outstanding contributions to the Department of Geography during 35 years of service. Four prizes to be awarded: one to the student who attains the highest Grade Point Average in an Honours B.A. program in Geography; one to the student who attains the highest Grade Point Average in an Honours B.Sc. program in Earth and Environmental Sciences; one to the student who attains the highest Grade Point Average in a three level B.A. or B.Sc. program in the School of Geography and Earth Sciences; and one to the student who, To be awarded to graduating students who, in the judgment of the School of Geography and Earth Sciences, has have demonstrated outstanding achievement in GEOG 4MT6 A/B or EARTHSC 4MT6 A/B.

# **The Religious Studies Prizes**

Established in 1982. Two prizes to be awarded to students who attain the highest Grade Point Average in a three- or four-level program in Religious Studies: (a) one to a student who has completed the program enrolled in 24 units or more, and (b) one to a student who has completed the program primarily on a part-time basis. To be awarded to graduating students who have completed a program in Religious Studies primarily on a part-time basis with high averages.

# The Richard Slobodin Prize

Established in 1982 in honour of Professor Richard Slobodin for his outstanding contributions to the Department of Anthropology. To be awarded to the graduating student in an Honours Anthropology program who has demonstrated outstanding academic achievement. full-time graduating students who have completed an Anthropology program with high averages.

Q:\AWARDS\UCAC\_UGC\2019\UGC Jan.29\_final.docx



# OFFICE OF THE REGISTRAR, STUDENT FINANCIAL AID & SCHOLARSHIPS

To Undergraduate Council Executive Committee From Undergraduate Council Awards Committee January 31, 2019

#### The Sociology Prizes

Established in 1982. Two prizes to be awarded to students with the highest Grade Point Averages: (a) one to a student who has completed the three-level program in Sociology while enrolled in 24 units or more; and (b) one to a student who has completed a program in Sociology primarily on a part-time basis. To be awarded to graduating students who have completed a program in Sociology primarily on a part-time basis with high averages.

# **Program Name Change**

References to "Gerontology" programs will be changed to "Aging and Society" programs in the donor terms for the following awards and bursaries:

The Class of '46 Bursaries

The Patricia Anne DiCiccio Memorial Bursary

The Hamilton Follies Inc (Geritol Follies) Bursary

The Karl Kinanen Alumni Prize in Gerontology

The McMaster University Retirees Association Prize

The McMaster University Retirees Association Scholarship

The Northwater Capital Management Bursary

The Pioneer Energy LP Prize in Aging and Society

The George Plumb Memorial Bursary

The Royal Canadian Legion Branch 163 Bursary

The Alvina Marie Werner Scholarship

The Stuart and Paula Winn Bursary

# PROPOSED NEW BURSARIES FOR APPROVAL

Submitted by the Office of Student Financial Aid & Scholarships

# The Hutton Kaufman Midwifery Bursary

Established in 2018 by patients, colleagues, friends, and family of Dr. Eileen Hutton in celebration of her retirement. This award recognizes the profound influence of both Dr. Hutton, assistant dean of the Midwifery Education Program at McMaster from 2007-2018 and of founding assistant dean of the program, Dr. Karyn Kaufman; together with their peers, these two luminaries paved the way for midwifery care, midwifery education and midwifery research in Canada. To be granted to undergraduate students enrolled in the Midwifery Education Program at McMaster who demonstrate financial need.

#### The W. Bruce MacLean Bursary

Established in 2018 by the estate of W. Bruce MacLean, B.A. (Class of '33), M.A. (Class of '47) in honour of Professors Henry Franklin Dawes and Dr. A. Boyd McLay, B.A. (Class of '22). To be granted to students enrolled in a Physics program who demonstrate financial need.

# The Robert McNutt Memorial Bursary

Established in 2018 by family, friends and colleagues, in memory of Robert (Bob) McNutt, one of McMaster's most versatile and accomplished academic leaders and scientists. To be granted to students enrolled in Level II or above in the Faculty of Science who demonstrate financial need.

Q:\AWARDS\UCAC\_UGC\2019\UGC Jan.29\_final.docx

Page 3 of 4



# OFFICE OF THE REGISTRAR, STUDENT FINANCIAL AID & SCHOLARSHIPS To Undergraduate Council Executive Committee From Undergraduate Council Awards Committee January 31, 2019

#### AWARDS REMOVED FROM THE UNDERGRADUATE CALENDAR FOR APPROVAL

The Anthropology Prize
The Appleton Family Bursaries
The Lynne Beaumont Scholarship
The Dalvi Family Entrance Scholarship
The David and Paramjit Dhaliwal Bursary
The Murray Enkin Midwifery Bursary
The Irene and David Fung Business Bursary
The Wally Majesky Labour Studies Bursary
The Renewable Industries Canada Scholarship

#### FOR INFORMATION

# **Award Value Changes**

The Alfred Harry Crowhurst Academic Grant \$1000 \$1500
The Hatch Academic Grant in Engineering \$2000 \$5000
The McMaster Chinese Alumni - Peter George International Entrance Scholarships \$2500 \$3000
The Audrey Evelyn Mepham Award \$1200 \$5,000
The Pioneer Energy LP Gerontology Prizes \$45 \$120
The John H. Trueman Prize \$250 \$450
The Alvina Marie Werner Scholarship \$2400 \$3500
The Howard P. Whidden Scholarship \$1500 \$2500
The Woo Family International Entrance Scholarship \$2000 \$3000



UNIVERSITY SECRETARIAT

Board of Governors

Senate

Gilmour Hall. Room 210 1280 Main Street West Hamilton, Ontario L8S 4L8 905.525.9140. Ext. 24337 univsec@mcmaster.ca www.mcmaster.ca/univsec

# UNDERGRADUATE COUNCIL AD-HOC COMMITTEE MEMBERSHIPS 2018-2019

#### **AD-HOC COMMITTEE ON DEFERRED EXAMINATIONS:**

**COMMITTEE MEMBERS** 

Quorum = 3Dr. Susan Searls Giroux Chair of Undergraduate Council Vice-Provost (Faculty) Elected Faculty Member Mr. Cameron Churchill Faculty of Engineering Elected Faculty Member Faculty of Science Dr. Rosa da Silva Ms. Raquel Munoz Undergraduate Student Faculty of Social Sciences Graduate Student

**CONSULTANTS** 

Ms. Melissa Pool University Registrar Office of the Registrar Ms. Andrea Thyret-Kidd Project Manager Office of the Provost Ms. Joanne Smith Assistant Dean (Studies) Faculty of Science Ms. Lynn Giordano Faculty of Social Sciences Assistant Dean (Studies)

#### AD-HOC COMMITTEE ON CERTIFICATES, DIPLOMAS, AND MICRO CREDENTIALS

**COMMITTEE MEMBERS** Quorum = 6

Dr. Susan Searls Giroux Co-Chair Vice-Provost (Faculty) Dr. Doug Welch Co-Chair Vice-Provost and Dean of Graduate Studies

Dr. Tracy Prowse UGC Appointed Member Associate Dean (Academic), Faculty of Social Sciences

Dr. Emad Mohammad UGC Appointed Member Associate Professor, Faculty of Business

Dr. Michael Thompson GC Appointed Member Associate Dean (Graduate Studies), Faculty of Engineering

Dr. Lehana Thabane GC Appointed Member Professor, Faculty of Health Sciences CCE Dr. Lorraine Carter Director, Centre for Continuing Education

Ms. Melissa Palialunga Undergraduate Student Arts & Science Program

Mr. Peter DeMaio Graduate Student Faculty of Social Sciences Ms. Melissa Pool University Registrar Office of the Registrar

CCE Appointed Member/Adult Learner Ms. Tavneet Khera Centre for Continuing Education

**CONSULTANTS** 

Ms. Maria White Assistant Dean (Studies) Faculty of Engineering

Mr. Dan Centea Associate Director W Booth School of Engineering Practice & Technology Dr. Stacey Ritz Assistant Dean Bachelor of Health Sciences (Honours) Program