

Area of Interest: Advanced Technology

Bachelor of Technology (Digital Health) (Honours) (Co-op)

Honours Degree

Program Code: 6525X03FWO

4 Years

Ottawa Campus

Our Program

Information Communications Technologies (ICTs) are a critical aspect of modern digital health ecosystems, supporting healthcare delivery through the provision of timely and reliable information for patient care, scientific research, strategic decision-making, data analytics and consumer health applications. The four-year Bachelor of Technology (Digital Health) (Honours) program prepares students for a career in today's digital health workforce by providing knowledge, skills and competencies in the related domains of health technology studies, business technology management, and software development.

Students build a multidisciplinary set of competencies through immersive learning simulations, innovative laboratory exercises and applied digital health projects in order to leverage essential technologies and systems to become successful healthcare technology professionals. Students inform and shape the future of healthcare by contributing to the design, development and improvement of innovative healthcare technologies, such as mobile health apps, hospital information systems, clinical decision aids and business intelligence applications.

Students gain theoretical and practical knowledge through online, in-class, clinical and simulation-based learning experiences. Students apply analytical and leadership skills in a hands-on, research-rich learning environment throughout the program.

Students also gain real-world experience through a paid co-operative education (co-op) work term(s) (see Additional Information for more details). Please note that places in the co-op work term(s) are subject to availability and academic eligibility. Please note admission to a co-op program does not guarantee a co-op placement.

Graduates have a unique blend of practical knowledge and abilities that can be leveraged in the health, technology and business sectors. Graduates are well positioned to find employment in healthcare institutions (e.g. hospitals, clinics, public health units, laboratories), digital health consulting firms, government (both federal and provincial), or other private sector digital health solution providers. Graduates also have the option to pursue further academic studies in the field.

The Bachelor of Technology (Digital Health) (Honours) program is aligned with the learning outcomes and competencies published by the Business Technology Management (BTM) standards. Algonquin College has initiated the accreditation process with BTM.

SUCCESS FACTORS

This program is well suited for students who:

- Possess strong analytical, logical, critical-thinking and interpersonal skills.
- Enjoy working both independently and collaboratively in problem-solving teams.
- Are interested in working in diverse situations spanning healthcare, business and technology.
- Enjoy confronting challenges and leveraging technologies to overcome obstacles.
- Appreciate working in a creative environment, and challenging their beliefs through exposure to a diversity of opinions.

Employment

Graduates inform and shape the future of healthcare by contributing to the design, development and improvement of innovative healthcare technologies, such as mobile health apps, hospital information systems, clinical decision aids, business intelligence applications and healthcare robotics software. They may find employment in healthcare institutions (e.g., hospitals, clinics, public health units, laboratories), digital health consulting firms, government (federal, provincial and municipal), or other private sector digital health solution providers. Because graduates also possess a BTM credential, their employment opportunities extend well beyond the healthcare sector to include the business and technology sectors.

Prospective job titles include: healthcare app developer; clinical workflow analyst; healthcare quality coordinator; Business intelligence analyst; project/program manager; systems integration specialist; change management lead; health information systems analyst; systems architect.

Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. Analyze, design, develop, implement and maintain business systems and/or components to support strategic business requirements.
2. Manage the process of evaluating, selecting and using business systems.
3. Apply accepted methodologies, theories, concepts and practices to develop and improve business and healthcare systems.
4. Manage data using appropriate methodologies, and standards to improve healthcare and business processes and decision-making.
5. Apply the Project Management Institute's Body of Knowledge to business systems projects.
6. Apply security principles and practices in systems development and the systems environment.
7. Apply principles and skills of business management, leadership and change management in the context of business systems development.
8. Apply quality assurance and quality management principles to business systems development projects.
9. Educate a diversity of clients in the use of business technology to support, promote and improve business and healthcare processes, and healthy-living initiatives.
10. Apply effective business technology management skills to innovate in digital health targeting new and existing local and global markets.
11. Adhere to professional, ethical and legal codes and standards related to digital health.
12. Conduct and evaluate research to contribute to evidence-based practice in digital health contexts.
13. Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship.
14. Analyze and evaluate how digital health solutions influence healthcare business practices, quality of care and patient safety.
15. Assess how differing value judgments associated with the practice of healthcare, business management and information technology impact digital health decision-making.

Program of Study

Level: 01	Courses	Hours
CST3100	Introduction to Computer Programming	70.0
CST3101	Database Design Fundamentals	56.0
ENL1100	Communications and Academic Writing	42.0
MAT8003	Mathematics for Programming	42.0
MGT4102	Business Fundamentals	42.0
Level: 02	Courses	Hours
ACC4101	Financial Accounting	42.0
CST3102	Programming	70.0
CST3103	Data Communication and Networking	42.0
HLT0280	Introduction to the Canadian Healthcare System	42.0
PHI1000	Logic and Critical Thinking	56.0
Level: 03	Courses	Hours
CST3104	Introduction to Mobile Application Development	56.0
CST3105	Advanced Database Design and SQL	56.0
CST3106	Internet Architecture and Web Development	56.0
CST3107	Operating Systems	42.0
ESC4300	Operations and Supply Chain Management	42.0
HLT0319	Introduction to Health Information Technology	42.0
Level: 04	Courses	Hours
BUS0008	Business Analytics and Advanced Business Intelligence	56.0
CST3109	Business Systems Requirements Analysis	42.0
ECO4201	Macroeconomics	42.0
HLT0281	Healthcare Concepts	42.0
HLT0282	Health Records and Data Standards	56.0
PHI2000	Introduction to Research	42.0
Level: 05	Courses	Hours
BUS0007	Strategic Business Intelligence	56.0
CST3110	Enterprise Architecture	42.0
CST3111	Project Management for It	42.0
CST3112	Business Systems Design and Implementation	56.0

GEP1001	Cooperative Education and Job Readiness	18.0
QUA2000	Statistics	42.0
Level: 06	Courses	Hours
HLT0283	Human Factors and Workflow Analysis	56.0
HLT0284	Change Management	42.0
HLT0285	Health Ethics, Privacy, and the Law	42.0
MGT0107	Business Technology Management	42.0
Elective: choose 2 Courses		Hours
BIO2200	Botany	56.0
ECO2000	Environmental Economics	42.0
ENL2025	Interpersonal Communication	42.0
FLS3101	French as a Second Language-Beginner 1	42.0
FLS3102	French as a Second Language-Beginner 2	42.0
GEO2300	Principles of Urban Planning	56.0
LAN3101	Spanish-Beginner 1	42.0
LAN3102	Spanish-Beginner 2	42.0
LAW2014	Law	42.0
PHI2002	Ethical Decision Making	42.0
PSI2000	Navigating Canada's Political Landscape	56.0
PSY2100	Introductory Psychology	42.0
SCI2000	Environmental Science	42.0
SOC2000	Introduction to Sociology	56.0
SOC2001	Anti-Racism: Theory and Practice	42.0
Co-op: 01	Courses	Hours
WKT0009	Co-Op I	0.0
Level: 07	Courses	Hours
BUS0010	Business Systems Security, Audit and Control	42.0
CST3115	Enterprise Mobile Application Development	56.0
HLT0286	Decision Support in Healthcare	56.0
HLT0287	Project I	42.0
MGT4701	Advanced Business Statistics	42.0
Elective: choose 1 Courses		Hours

CUL4000	Global Citizenship	42.0
ENL4016	World Literature	42.0
ENL4100	Creative Writing	42.0
ENL4200	New Worlds and Alternative Realities: Speculative Fiction	42.0
PHI4000	Philosophy and Popular Culture	42.0
PHI4003	The Philosophy of Love and Sex	42.0
PHI4004	Technology,Society and the Environment	42.0
PHI4100	Survival in the Information Age: Risk and the Media	42.0
PHY4000	Black Holes, Big Bangs and the Cosmos	42.0
SOC4000	Criminology	42.0
SOC4001	Global Perspectives	42.0
Level: 08 Courses		Hours
HLT0288	Healthcare Quality Improvement	42.0
HLT0289	Project II	42.0
MGT6120	Entrepreneurship	42.0
Elective: choose 1 Courses		Hours
CUL4000	Global Citizenship	42.0
ENL4016	World Literature	42.0
ENL4100	Creative Writing	42.0
ENL4200	New Worlds and Alternative Realities: Speculative Fiction	42.0
PHI4000	Philosophy and Popular Culture	42.0
PHI4003	The Philosophy of Love and Sex	42.0
PHI4004	Technology,Society and the Environment	42.0
PHI4100	Survival in the Information Age: Risk and the Media	42.0
PHY4000	Black Holes, Big Bangs and the Cosmos	42.0
SOC4000	Criminology	42.0
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PHI2002	Ethical Decision Making	42.0
PSI2000	Navigating Canada's Political Landscape	56.0
PSY2100	Introductory Psychology	42.0
SCI2000	Environmental Science	42.0
SOC2000	Introduction to Sociology	56.0
SOC2001	Anti-Racism: Theory and Practice	42.0

Fees for the 2023/2024 Academic Year

Tuition and related ancillary fees for this program can be viewed by using the Tuition and Fees Estimator tool at <https://www.algonquincollege.com/fee-estimator>.

Further information on fees can be found by visiting the Registrar's Office website at <https://www.algonquincollege.com/ro>.

Fees are subject to change.

Additional program related expenses include:

- Books and supplies cost approximately \$1,000 per academic year.

Admission Requirements for the 2024/2025 Academic Year

College Eligibility

- Ontario Secondary School Diploma (OSSD) or equivalent.
- Mature students are applicants who have not achieved the Ontario Secondary School Diploma (OSSD) or its equivalent and who are at least 19 years of age on or before the commencement of the program in which they intend to enroll. Mature students applying for Degree programs satisfy College Eligibility by having demonstrated academic abilities equivalent to those of Ontario high school graduates, verified by successful completion of at least one full-time term at the post-secondary level (minimum five courses taken concurrently in an academic program of study).

Program Eligibility

- Six Grade 12 university (U) or university/college (M) courses with a minimum 65% average including:
 - One Grade 12 U English course, with a minimum of 60%.
 - One Grade 12 U Math course, with a minimum of 60%.
- Please note that mature students must meet the following subject-specific Program Eligibility requirements, either directly or through equivalencies:

Admission Requirements for 2023/2024 Academic Year

College Eligibility

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Program Eligibility

- Six Grade 12 university (U) or university/college (M) courses with a minimum 65% average including:
 - One Grade 12 U English course, with a minimum of 60%.
 - One Grade 12 U Math course, with a minimum of 60%.
- Please note that mature students must meet the following subject-specific Program Eligibility requirements, either directly or through equivalencies:
 - One Grade 12 U Math course, with a minimum of 60%.

Application Information

BACHELOR OF TECHNOLOGY (DIGITAL HEALTH) (HONOURS) (CO-OP) **Program Code 6525X03FWO**

Applications to full-time day programs must be submitted with official transcripts showing completion of the academic admission requirements through:

ontariocolleges.ca
60 Corporate Court
Guelph, Ontario N1G 5J3
1-888-892-2228

Students currently enrolled in an Ontario secondary school should notify their Guidance Office prior to their online application at <http://www.ontariocolleges.ca/>.

Applications for Fall Term and Winter Term admission received by February 1 will be given equal consideration. Applications received after February 1 will be processed on a first-come, first-served basis as long as places are available.

International applicants please visit this link for application process information:
<https://algonquincollege.force.com/myACint/>.

For further information on the admissions process, contact:

Registrar's Office
Algonquin College
1385 Woodroffe Ave
Ottawa, ON K2G 1V8
Telephone: 613-727-0002
Toll-free: 1-800-565-4723
TTY: 613-727-7766
Fax: 613-727-7632
Contact: <https://www.algonquincollege.com/ro>

Additional Information

Algonquin College has been granted consent by the Ministry of Colleges and Universities to offer this applied degree for a seven-year term starting Fall 2020. The College shall ensure that all students admitted to the above-named program during the period of consent have the opportunity to complete the program within a reasonable timeframe.

Co-operative education (Co-op) allows students to integrate their classroom learning with a real-world experience through paid work terms. Two academic terms prior to the cooperative education work term, students are required to actively participate in and successfully complete the self-directed co-op course, readiness activities and workshops.

Students must actively conduct a guided, self-directed job search and are responsible for securing approved program-related paid co-op employment. Students compete for co-op positions alongside students from Algonquin College and other Canadian and international colleges and universities. Algonquin College's Co-op Department provides assistance in developing co-op job opportunities and guides the overall process, but does not guarantee that a student will obtain employment in a co-op work term. Co-op students may be required to relocate to take part in the co-op employment opportunities available in their industry and must cover all associated expenses; e.g., travel, work permits, visa applications, accommodation and all other incurred expenses.

Co-op work terms are typically 14 weeks in duration and are completed during a term when students are not taking courses. For more information on your program's co-op level(s), visit the courses tab on your program's webpage.

International students enrolled in a co-op program are required by Immigration, Refugees and Citizenship Canada (IRCC) to have a valid Co-op/Internship Work Permit prior to commencing their work term. Without this document International students are not legally eligible to engage in work in Canada that is part of an academic program. The Co-op/Internship Work Permit does not authorize international students to work outside the requirements of their academic program.

For more information on co-op programs, the co-op work/study schedule, as well as general and program-specific co-op eligibility criteria, please visit algonquincollege.com/coop.

Successful completion of all courses, including mandatory cooperative education (Co-op) Work Terms, is a requirement for graduation.

TRANSFER CREDIT RECOGNITION

Applicants with degrees or degree level courses from Canadian institutions empowered to award degrees and from other degree granting institutions recognized by the Ontario Ministry of Colleges and Universities (MCU) will be assessed on a case-by-case basis. To receive a course credit, a minimum grade of C (65%) is required. Official transcripts and course descriptions/outlines must be presented with the application for credit recognition. Applicants with degrees or degree level courses from countries other than Canada or from postsecondary institutions not recognized by the MCU must have their degrees evaluated by a recognized Canadian public or private institution that

specializes in the evaluation of international degree programs. MCU must have their degrees evaluated by a recognized Canadian public or private institution that specializes in the evaluation of international degree programs.

ADVANCED STANDING

Graduates of related Ontario College Diploma or Ontario College Advanced Diploma programs may be eligible for advanced standing into the degree program. Please visit the degree program listing or speak to the Program Coordinator for more information and to confirm eligibility.

DEGREE ELECTIVE INFORMATION

Students may choose from a variety of breadth courses. Courses from a range of disciplines are offered within the humanities, social sciences, sciences, global cultures and mathematics. Elective offerings vary from semester to semester.

INTERNATIONAL STUDENT INFORMATION

International students are assessed individually. All candidates must have OSSD equivalencies and/or postsecondary equivalencies assessed by an appropriate body. Inquiries regarding eligibility of this nature should be directed specifically to Algonquin's International Students' Office.

Contact Information

Program Coordinator(s)

- Reginald Dyer, <mailto:dyerr@algonquincollege.com> , 613-727-4723, ext. 5148

Course Descriptions

ACC4101 Financial Accounting

Generally accepted accounting principles are widely used as benchmarks throughout business. Students explore the role of financial accounting from a user perspective. Students also engage with the preparation, use and analysis of financial statements and concepts of accrual accounting, in the context of various forms of business organizations and internal control issues.

Prerequisite(s): none

Corerequisite(s):none

BIO2200 Botany

Biologists with an interest in plant life may choose to specialize in botany. Beginning with the organic features of life, focusing on plants, students investigate the diversity of plant life and the basis for distinction amongst various species. With a deeper knowledge of plant structures and variability, students consider the impact of plants in the modern world, including human interactions such as food production, building materials and medicine.

Prerequisite(s): none

Corerequisite(s):none

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Prerequisite(s): none

Corerequisite(s):none

BUS0007 Strategic Business Intelligence

Business Intelligence (BI) allows organizations to leverage their ability to use available information in new and innovative ways that extend beyond the usual common approaches. As such, BI has proved to be an essential strategic resource for businesses. Students examine different types of analytics that enable managers to enhance their decision-making and increase opportunities for organizational competitive advantage. Special attention is given to BI strategy and management, emerging trends in BI, big data, SPSS and/or SAS, rendering and probability in the cloud, BI reports and OLAP cubes.

Prerequisite(s): CST3105

Corerequisite(s):none

BUS0008 Business Analytics and Advanced Business Intelligence

Business Intelligence systems are essential for collecting, storing, evaluating and analyzing information. Students study the principles related to designing, building and implementing a business intelligence (BI) system using a variety of technological tools. Topics include: data warehouse, SQL in relation to BI data manipulations, dimensional modeling, online analytic processing (OLAP), visualization tools dealing with high impact and low entry requirements, data mining, ETL (extract, transform, load) and dashboards.

Prerequisite(s): none
Corerequisite(s):none

BUS0010 Business Systems Security, Audit and Control

As a result of the increasing concern for security of information, there is a growing demand for qualified auditors to perform security audits of large organizations' IT systems and infrastructure. Students examine and employ the principles and methodologies needed to plan and organize security audits and ensure compliance with enterprise security requirements. Curriculum is closely aligned with the industry-recognized Certified Information Systems Auditor's (CISA) requirements. Case studies, in-class discussions and learning activities focus on performing high level security audits.

Prerequisite(s): CST3110
Corerequisite(s):none

CST3100 Introduction to Computer Programming

The underlying technical core of business systems is an effective and efficient implementation of program code. Through technical introduction to the fundamentals of programming with Java, students develop concise, robust, and efficient code. Students examine the concepts of object-oriented programming and use pseudocode to provide a descriptive framework for algorithm development. Emphasis is on problem-solving and fundamental logic skills as well as documentation, both in-line and high-level, to underscore the importance of readability and maintainability. A key focus is top-down design, and effective testing and debugging techniques. To establish the necessary background, students learn to use an Integrated Development Environment (IDE), program development, implementation, and execution, as well as machine-level representation of data and common language control constructs.

Prerequisite(s): none
Corerequisite(s):none

CST3101 Database Design Fundamentals

Modern business systems rely on fast information storage, processing and retrieval for everyday operations and strategic decision-making. Storing data in well-structured and standard format is an important key towards achieving efficiency and speed. Throughout the course, students acquire a theoretical and practical understanding of database systems, types, design and applications. Course components consist of theoretical and hands-on design of databases based on industry standards, such as SQL. Industry case studies focus on data use, data security, cloud-based options, database design, implementation and normalization.

Prerequisite(s): none
Corerequisite(s):none

CST3102 Programming

The de facto development paradigm for mobile and enterprise systems is object based. This course explores the fundamentals of object-oriented design and programming. Students learn to create and manipulate reusable objects, encapsulate data and logic within a class, inherit one class from another and implement polymorphism and exception handling. Topics may include design patterns, Java APIs, J-Unit testing framework and graphical user interface fundamentals.

Prerequisite(s): CST3100 and MAT8003
Corerequisite(s):none

CST3103 Data Communication and Networking

Business decision-makers increasingly demand and rely on immediate access to accurate and secure information. Students examine the concepts, components, implementation and operation of computer networks in personal area networks, local area networks, wireless networks, wide area networks, and on the internet. Knowledge of the communication layers is examined using the OSI

reference model and in particular the TCP/IP protocol suite and Ethernet. Students evaluate risks, network security, vulnerabilities and mitigation strategies. Guided by sound theoretical knowledge, students also examine materials from the Cisco Network Academy Program CCNA Exploration Networking Fundamentals, CompTIA Network+ Certification as well as analyze industry case studies.

Prerequisite(s): none
Corerequisite(s):none

CST3104 Introduction to Mobile Application Development

Mobile devices, such as smartphones and tablets, are omnipresent and have come to dominate the landscape of mobile computing. Students examine the foundations of programming mobile applications for the Android operating system using an Integrated Development Environment (IDE) and basic mobile programming concepts to build applications for the smartphone and tablet. Key topics include object-oriented database APIs, animation, multi-threading, networking and performance considerations. Particular emphasis is on user interface design for mobile devices and user interactions using multi-touch technologies.

Prerequisite(s): CST3101 and CST3102 and CST3103
Corerequisite(s):none

CST3105 Advanced Database Design and SQL

Increasingly, businesses face challenges involved with handling volumes of large and complex data. The ability to effectively store, manage, access and communicate with databases requires practical knowledge of advanced database features. Students evaluate and apply methodologies for design, analysis, scalability and evaluation of database systems. Students gain advanced understanding and practical experience in SQL, PLSQL programming, advanced engineering modeling tools, rollup and cube operations, transaction control, and data warehousing, cloud-based database services and security.

Prerequisite(s): CST3101
Corerequisite(s):none

CST3106 Internet Architecture and Web Development

Internet-based services are a key foundation of e-Commerce systems. Students explore the infrastructure, both in terms of networking and services, of the Internet. Students review the classical client-server architecture, explore cloud-based services as well as the concepts of Service-Oriented-Architecture (SOA) and Software-as-a-Service (SaaS). By applying principles of graphical user interface design for both browser technology and mobile devices, students define structure and content of web pages through the use of markup and scripting languages. Special emphasis is on services that provide remote access to enterprise database systems.

Prerequisite(s): CST3102 and CST3103
Corerequisite(s):none

CST3107 Operating Systems

Operating systems come in different varieties, such as Windows, Unix, iOS, Android, etc., each with its own unique attributes, but all sharing several features in common. It is important to understand the common characteristics and functionality of operating systems. Students gain an understanding of the concepts and components of operating systems as well as how they interact and function with various hardware components. Course focus includes details of various operating system structures, access (to CPU and input/out devices, etc.), resources, processes and storage management, as well as control mechanisms. Students acquire knowledge of installation, basic security, configuration, administration and modifications through robust theoretical and hands-on assignments.

Prerequisite(s): none
Corerequisite(s):none

CST3109 Business Systems Requirements Analysis

Translating client requirements into system specifications is critical to successful end products and the starting point is requirements analysis. Students gain an understanding of the development life cycle and the concepts of requirements analysis, and their impact from inception to final product. Course components include best practices, software engineering principles and standards, usability and artifacts for modeling requirements analysis. Students research, analyze, develop and evaluate solutions. Topics may include: agile development, outsourcing, ethics, security and privacy, cloud services and in-house development.

Prerequisite(s): CST3102 and CST3103 and CST3105
Corerequisite(s):none

CST3110 Enterprise Architecture

In a strategic sense, enterprise system architects are key contributors of any business. Collaborating effectively at all levels within the organization is paramount. The ultimate goal of enterprise architecture is to align enterprise technology investment with business strategic planning. Students compare and contrast frameworks and methodologies used in guiding enterprise-level decisions. Through the use of case studies, students select and apply an appropriate process to support enterprise-level technology decisions used in building enterprise architecture.

Prerequisite(s): ACC4101 and BUS0008 and CST3109
Corerequisite(s):none

CST3111 Project Management for It

The role of project management in information technology (IT) revolves around product development and implementation. The content has been closely aligned with the Project Management Institute's (PMIs) Project Management Body of Knowledge (PMBOK) concepts and methodologies. Topics include management issues related to planning, organization, scheduling, resource allocation and project monitoring and control. Students will also examine IT project management tools for effective project scheduling and management. Through relevant case studies, student projects and presentations, students develop skills and knowledge in relation to technology project management.

Prerequisite(s): CST3109
Corerequisite(s):none

CST3112 Business Systems Design and Implementation

Design and implementation follow requirements analysis, and often occupy a significant portion of the development process. Guided by software development industry standards and best practices, students gain solid theoretical and practical experience with the design and implementation steps by applying design techniques and creating design artifacts. Students investigate prototyping, testing, debugging and quality assurance aspects of the software engineering process. Real world case studies focus on successes and failures while emphasizing the importance of following industry best practices.

Prerequisite(s): CST3109
Corerequisite(s):none

CST3115 Enterprise Mobile Application Development

Enterprise mobile software offers tremendous opportunity for engagement, both by ensuring customers return to your server on a regular basis, and in being central touch-point for employees or partners. Students differentiate between external (customer) and internal (employee) users and their respective design requirements. Topics include multi-platform management tools, network security requirements to support mobile users, mobile Web versus native mobile development, application programming interface (API) design for accessing enterprise data sources as well as sophisticated graphic user interface (GUI) experiences for external and internal users. Emphasis is on security (information protection, identity, device tracking, etc.) and cover forward-looking topics such as increased capability for data capture (sensors, GPS, cameras). Using Java, students

develop both server and client (mobile) system components.

Prerequisite(s): CST3104 and CST3106

Corerequisite(s):none

CUL4000 Global Citizenship

Informed citizens in today's world appreciate the meaning of civic life at the local, national and global level. Students reflect on and develop a personal awareness of the meaning of freedoms, rights and obligations in a diverse global community and consider the political, social and economic drivers that influence patterns of human behaviour and the health of the planet. Based on general principles of global citizenship, students look beyond national borders to assess personal responsibilities related to the health and well-being of the planet and inhabitants. Students critically evaluate information related to environmental and social health, equipped with attitudes and behaviours that foster global environmental and social responsibility.

Prerequisite(s): ENL1100 and PHI1000

Corerequisite(s):none

CUL4000 Global Citizenship

Informed citizens in today's world appreciate the meaning of civic life at the local, national and global level. Students reflect on and develop a personal awareness of the meaning of freedoms, rights and obligations in a diverse global community and consider the political, social and economic drivers that influence patterns of human behaviour and the health of the planet. Based on general principles of global citizenship, students look beyond national borders to assess personal responsibilities related to the health and well-being of the planet and inhabitants. Students critically evaluate information related to environmental and social health, equipped with attitudes and behaviours that foster global environmental and social responsibility.

Prerequisite(s): ENL1100 and PHI1000

Corerequisite(s):none

ECO2000 Environmental Economics

Issues pertaining to the environment have a major financial impact on society and government. Environmental economics examines the way human decisions affect the quality of the environment, how human values and institutions shape our demands for improvements in the quality and about designing effective public policies to bring about these improvements. Students examine problems and solutions relating to environmental policy analysis in the Canadian context.

Prerequisite(s): none

Corerequisite(s):none

ECO2000 Environmental Economics

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Prerequisite(s): none

Corerequisite(s):none

ECO4201 Macroeconomics

Macroeconomics is a social science that examines the objectives and policies that affect the whole economy. Students explore the principles of macroeconomics using economic models to analyze the performance of the economy at an aggregate level. Through lectures and discussions, Students examine how the level of unemployment, inflation and national income are determined, investigate the impact that fiscal and monetary policies have on stabilizing the economy and analyze Canada's international economic relationships, including the international flows of goods

and of capital.

Prerequisite(s): none

Corerequisite(s):none

ENL1100 Communications and Academic Writing

Effective communication is an integral component of success in the workplace and in lifelong learning. Students review communication theory and its connection to expository writing. Frequent writing exercises encourage the development of content that is coherent, well organized and correct. Students consider and use strategies to generate ideas, to collect and organize information, to acknowledge sources, to identify and develop a thesis and to adapt format, style and tone for different purposes and audiences.

Prerequisite(s): none

Corerequisite(s):none

ENL2025 Interpersonal Communication

Effectively communicating with others, both professionally and personally, is an art that requires conscious development. Students address the techniques related to interpersonal communication challenges in the diverse workplace. Focus is on communication barriers, verbal and non-verbal communication, listening, team work, and relational dynamics. Through role play, analysis, and case studies, students engage in simulated and authentic interpersonal communication situations.

Prerequisite(s): ENL1100

Corerequisite(s):none

ENL2025 Interpersonal Communication

Effectively communicating with others, both professionally and personally, is an art that requires conscious development. Students address the techniques related to interpersonal communication challenges in the diverse workplace. Focus is on communication barriers, verbal and non-verbal communication, listening, team work, and relational dynamics. Through role play, analysis, and case studies, students engage in simulated and authentic interpersonal communication situations.

Prerequisite(s): ENL1100

Corerequisite(s):none

ENL4016 World Literature

Exposure to broad sources of literature promotes an open-minded perspective on today's global society and encourages an appreciation of diversity and human differences. In World Literature, students explore key literary works from around the world and examine the socio-historical and cultural contexts in which authors wrote and set these texts. Students learn to identify common themes and apply literary and cultural theory to these works towards expanding critical thinking skills and developing an analytical vocabulary. Through seminar presentations, group discussions, debates, journaling, and creative writing, students grapple with literary representations of social, political, and cultural issues from around the world, gaining an appreciation of what it means to be responsible global citizens and possess the ability to listen to, question, and value diverse perspectives.

Prerequisite(s): ENL1100

Corerequisite(s):none

ENL4016 World Literature

Exposure to broad sources of literature promotes an open-minded perspective on today's global society and encourages an appreciation of diversity and human differences. In World Literature, students explore key literary works from around the world and examine the socio-historical and cultural contexts in which authors wrote and set these texts. Students learn to identify common themes and apply literary and cultural theory to these works towards expanding critical thinking skills and developing an analytical vocabulary. Through seminar presentations, group discussions,

debates, journaling, and creative writing, students grapple with literary representations of social, political, and cultural issues from around the world, gaining an appreciation of what it means to be responsible global citizens and possess the ability to listen to, question, and value diverse perspectives.

Prerequisite(s): ENL1100
Corerequisite(s):none

ENL4100 Creative Writing

Whether for personal or public consumption, many people enjoy writing short fiction to express their creative energy while improving upon their overall writing abilities. Working with professional short stories as models, students examine the stylistic components that contribute to the excitement, atmosphere, and overall readability of short fiction. Students share their work and provide formal feedback on the work of others.

Prerequisite(s): ENL1100
Corerequisite(s):none

ENL4100 Creative Writing

Whether for personal or public consumption, many people enjoy writing short fiction to express their creative energy while improving upon their overall writing abilities. Working with professional short stories as models, students examine the stylistic components that contribute to the excitement, atmosphere, and overall readability of short fiction. Students share their work and provide formal feedback on the work of others.

Prerequisite(s): ENL1100
Corerequisite(s):none

ENL4200 New Worlds and Alternative Realities: Speculative Fiction

Speculative fiction gathers together all those works of fiction in which new worlds or alternative realities are envisioned. Within this category of prose, students have the opportunity to explore the various sub-genres that present readers with new ways of thinking about some of the issues that face society. Students also develop skills in critical analysis using a variety of approaches and methodologies from literary studies.

Prerequisite(s): none
Corerequisite(s):none

ENL4200 New Worlds and Alternative Realities: Speculative Fiction

Speculative fiction gathers together all those works of fiction in which new worlds or alternative realities are envisioned. Within this category of prose, students have the opportunity to explore the various sub-genres that present readers with new ways of thinking about some of the issues that face society. Students also develop skills in critical analysis using a variety of approaches and methodologies from literary studies.

Prerequisite(s): none
Corerequisite(s):none

ESC4300 Operations and Supply Chain Management

From a planning point of view, the need to balance demand and supply is paramount in today's business world. The basic concepts to manage a supply chain are covered from suppliers to customers. Students focus on production planning, master scheduling, MRP, capacity management, forecasting, purchasing, inventory management, and physical distribution, among other topics.

Prerequisite(s): none
Corerequisite(s):none

FLS3101 French as a Second Language-Beginner 1

The French language is an asset when communicating in the workplace. Students with no prior knowledge of French acquire basic forms and structures to interact and communicate in a simple way with French speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples support students to gain basic oral expression and comprehension using simple phrases that develop vocabulary, pronunciation, and comprehension. Students begin to appreciate cultural and linguistic differences when French is used in the workplace.

Prerequisite(s): none

Corerequisite(s):none

FLS3101 French as a Second Language-Beginner 1

The French language is an asset when communicating in the workplace. Students with no prior knowledge of French acquire basic forms and structures to interact and communicate in a simple way with French speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples support students to gain basic oral expression and comprehension using simple phrases that develop vocabulary, pronunciation, and comprehension. Students begin to appreciate cultural and linguistic differences when French is used in the workplace.

Prerequisite(s): none

Corerequisite(s):none

FLS3102 French as a Second Language-Beginner 2

The workplace benefits from having professionals with knowledge of the French language. Students with basic knowledge of French gain more control over forms and structures to interact and communicate in a simple way with French speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples provide students with opportunities to enhance their basic oral expression and comprehension using simple phrases that further develop vocabulary, pronunciation, and comprehension. Students deepen their knowledge of cultural and linguistic differences of French in the workplace.

Prerequisite(s): none

Corerequisite(s):none

FLS3102 French as a Second Language-Beginner 2

The workplace benefits from having professionals with knowledge of the French language. Students with basic knowledge of French gain more control over forms and structures to interact and communicate in a simple way with French speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples provide students with opportunities to enhance their basic oral expression and comprehension using simple phrases that further develop vocabulary, pronunciation, and comprehension. Students deepen their knowledge of cultural and linguistic differences of French in the workplace.

Prerequisite(s): none

Corerequisite(s):none

GEO2300 Principles of Urban Planning

Increasingly cities and communities are feeling the pressure of expansion, and people from all walks of life feel disconnected from the processes, procedures, and decisions that are affecting everyday life. Students consider urban transformation with a focus on practicing sustainability by exploring innovations in land use, transportation, resource planning and economic development, resulting in employment opportunities, as well as healthy and vibrant cities. Students use local and regional activities as a starting point for developing a knowledge base for future social and community involvement. Research projects and assignments encourage students to identify the gaps between theoretical approaches to urban planning and the practical applications as evidenced in their local surroundings.

Prerequisite(s): none

Corerequisite(s):none

GEO2300 Principles of Urban Planning

Increasingly cities and communities are feeling the pressure of expansion, and people from all walks of life feel disconnected from the processes, procedures, and decisions that are affecting everyday life. Students consider urban transformation with a focus on practicing sustainability by exploring innovations in land use, transportation, resource planning and economic development, resulting in employment opportunities, as well as healthy and vibrant cities. Students use local and regional activities as a starting point for developing a knowledge base for future social and community involvement. Research projects and assignments encourage students to identify the gaps between theoretical approaches to urban planning and the practical applications as evidenced in their local surroundings.

Prerequisite(s): none
Corerequisite(s): none

GEP1001 Cooperative Education and Job Readiness

Students are guided through a series of activities that prepare them to conduct a professional job search and succeed in the workplace. Through a detailed orientation students learn the cooperative education program policies and procedures related to searching and securing a work term opportunity. Students identify their strengths and transferable skills and participate in workshop-style sessions that focus on cover letter and resume development, interview techniques and job search strategies. Students learn how to navigate a web-based resource centre, which is used to post employment and cooperative education job opportunities. Students reflect on workplace success, ethics and responsibilities.

Prerequisite(s): none
Corerequisite(s): none

HLT0280 Introduction to the Canadian Healthcare System

The Canadian healthcare system is a complex mix of jurisdictions, payment methods, delivery systems, care providers, and views of wellness and illness that those who work in healthcare and with health professionals should understand. Students explore federal, provincial/territorial and local government responsibilities for healthcare and public financing. Focus is on how healthcare agencies provide healthcare to individuals, families, groups and communities through prevention, care for the acutely and chronically ill and palliative care. Other topics include the roles of healthcare providers, scopes of practice, how roles overlap and complement each other and issues in providing comprehensive interprofessional, patient-centred care.

Prerequisite(s): none
Corerequisite(s): none

HLT0281 Healthcare Concepts

The Canadian healthcare system is an intricate web of complex processes, professions and institutions, each of which has a language unique to it. Understanding how digital technologies interface with and creatively transform healthcare relies on foundational knowledge of medical and healthcare processes and terminology. Throughout this interactive course students learn the functions, and practice the language of clinical and administrative healthcare environments such as: patient care, patient scheduling, admission, discharge and transfer (ADT), pharmacy and medication management and diagnostic and surgical procedures. Through the use of appropriate terminology, medical abbreviations and acronyms students develop language that supports effective communication with healthcare professionals and stakeholders.

Prerequisite(s): none
Corerequisite(s): none

HLT0282 Health Records and Data Standards

Health records are a critical component of every health system. Records enable health professionals to understand a patient's health history and give both professionals and consumers

more complete and accurate information to inform decision-making. With the broad adoption of electronic medical record systems the ability to store, maintain and transfer data in a standardized fashion is key to improving healthcare processes, communicating across local and global organizations and maintaining patient safety. Students evaluate different concepts for maintaining quality health records, including the health information lifecycle. Through hands-on, lab-based exercises, students examine standards for abstracting, coding and transferring electronic health data such as ICD 9/10, SNOWMED, LOINC and HL7.

Prerequisite(s): none

Corerequisite(s):none

HLT0283 Human Factors and Workflow Analysis

Humans have capabilities and limitations that affect their performance. The design of technology and systems can positively or negatively affect job performance and patient safety in healthcare. Students examine theories of design and analysis related to human factors and human-computer interaction, including workflow analysis. These methods are put into practice with a combination of classroom activities and time in the simulation lab where realistic clinical scenarios are created. The simulation lab experience provides students with the opportunity to learn and practice data collection methods used in human factors evaluations, and to identify threats to patient safety when new technologies are introduced.

Prerequisite(s): none

Corerequisite(s):none

HLT0284 Change Management

Healthcare organizations are subject to continuous change, whether it's through the introduction of new or redesigned technologies and processes into clinical practice or continuous quality improvement strategies. Managing that change effectively requires knowledge of change management theories and applications. Students explore the theories and applications of change and examine the psychology of organizational behaviour and change. Students analyze examples of successful change and common modes of failure. Students plan for change by applying knowledge in areas such as: leadership and negotiation skills, conflict management, knowledge translation, and physician and stakeholder engagement.

Prerequisite(s): none

Corerequisite(s):none

HLT0285 Health Ethics, Privacy, and the Law

There are a number of ethical and legal issues unique to the practice of healthcare. For example, for healthcare to be delivered effectively individuals must often divulge sensitive personal information, which must be collected and used according to ethical and professional standards, and privacy legislation specific to healthcare. Students engage various ethical and privacy issues in healthcare and the digital health ecosystem. Topics include: value theory, privacy; research ethics; anonymity and re-identification; autonomy and informed consent. Students explore the relationship between ethics, privacy and the law, and the design and use of digital health technologies.

Prerequisite(s): none

Corerequisite(s):none

HLT0286 Decision Support in Healthcare

Decision support in healthcare has evolved from simple data extraction for measuring quality and cost to providing meaningful support for healthcare professionals working in complex environments. Students examine the history of decision support in healthcare with emphasis on potential and currently available clinical decision support. Classroom activities complement and provide background for simulation labs. Students examine how clinical decision support changes clinical workflow and also examine the advantages, as well as unintended consequences, of clinical decision support in healthcare.

Prerequisite(s): HLT0283

Corerequisite(s):none

HLT0287 Project I

In order to practice in a professional capacity, students must fully integrate their digital health skills and knowledge. Students integrate the knowledge accumulated in the previous three years of study in the program into a practical design and build of a year-long project of which the first half is in this course. Students collaborate in groups to apply their business, healthcare and IT skills to a real-world project. By applying standard project management principles, students identify and define a problem and produce a digital health solution. Students may have the opportunity to partner with industry on applied research projects.

Prerequisite(s): none

Corerequisite(s):none

HLT0288 Healthcare Quality Improvement

Quality and patient safety represent priority areas and drivers for improving our health care system, leading to better patient care processes and outcomes. Students examine the principles and concepts related to quality and quality improvement in healthcare. Topics include approaches for assessing and evaluating quality of care, contemporary patient safety issues, quality improvement strategies and philosophies, as well as an overview of tools and methods used for quality management and improvement.

Prerequisite(s): none

Corerequisite(s):none

HLT0289 Project II

Possessing practical and real-world experience in project development is a necessity for entry into the field of digital health. Students apply skills and knowledge acquired throughout the program such as conceptual frameworks, methodologies and principles in executing digital health projects. Emphasis is on capably performing tasks during the completion of project work. Students finalize the design work, integrate components and develop implementation and maintenance plans to ensure that the project meets the requirements set in the initial project plan.

Prerequisite(s): HLT0287

Corerequisite(s):none

HLT0319 Introduction to Health Information Technology

Possessing strong underpinning knowledge of principles and methodologies related to health information technology (HIT) provides the groundwork further development within the field. Students examine the fundamentals of HIT concepts along with the challenges, risks and values. Topics include: electronic health records, telehealth/telemedicine, end-user involvement, privacy and security issues and regulations, back-ups and recovery planning, networking technologies and IT certifications. Students also explore current IT trends in the healthcare field including mobile health, smart homes, wearable computing, and artificial intelligence.

Prerequisite(s): none

Corerequisite(s):none

LAN3101 Spanish-Beginner 1

The Spanish language is an asset when communicating in the workplace. Students with no prior knowledge of Spanish acquire basic forms and structures to interact and communicate in a simple way with Spanish speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples support students to gain basic oral expression and comprehension using simple phrases that develop vocabulary, pronunciation, and comprehension. Students begin to appreciate cultural and linguistic differences when Spanish is used in the workplace.

Prerequisite(s): none

Corerequisite(s):none

LAN3101 Spanish-Beginner 1

The Spanish language is an asset when communicating in the workplace. Students with no prior knowledge of Spanish acquire basic forms and structures to interact and communicate in a simple way with Spanish speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples support students to gain basic oral expression and comprehension using simple phrases that develop vocabulary, pronunciation, and comprehension. Students begin to appreciate cultural and linguistic differences when Spanish is used in the workplace.

Prerequisite(s): none

Corerequisite(s):none

LAN3102 Spanish-Beginner 2

The workplace benefits from having professionals with knowledge of the Spanish language. Students with basic knowledge of Spanish gain more control over forms and structures to interact and communicate in a simple way with Spanish speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples provide students with opportunities to enhance their basic oral expression and comprehension using simple phrases that further develop vocabulary, pronunciation, and comprehension. Students deepen their knowledge of cultural and linguistic differences of Spanish in the workplace.

Prerequisite(s): none

Corerequisite(s):none

LAN3102 Spanish-Beginner 2

The workplace benefits from having professionals with knowledge of the Spanish language. Students with basic knowledge of Spanish gain more control over forms and structures to interact and communicate in a simple way with Spanish speakers. Class instruction and practice, repeated feedback, and exposure to a variety of language samples provide students with opportunities to enhance their basic oral expression and comprehension using simple phrases that further develop vocabulary, pronunciation, and comprehension. Students deepen their knowledge of cultural and linguistic differences of Spanish in the workplace.

Prerequisite(s): none

Corerequisite(s):none

LAW2014 Law

The reach of the rule of law extends into our lives on a daily basis. As much as it is present in our lives, very few people are aware of the processes, procedures and theories that guide and underpin the development and maintenance of a functional legal system. With attention to key historical figures and events, students explore the scope, jurisdiction, and key concepts of the sub-disciplines within the field of law. Through an introduction to legal arguments and methodologies, students distinguish between various legal systems and wrestle with the difference between law and justice.

Prerequisite(s): none

Corerequisite(s):none

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The reach of the rule of law extends into our lives on a daily basis. As much as it is present in our lives, very few people are aware of the processes, procedures and theories that guide and underpin the development and maintenance of a functional legal system. With attention to key historical figures and events, students explore the scope, jurisdiction, and key concepts of the sub-disciplines within the field of law. Through an introduction to legal arguments and methodologies, students distinguish between various legal systems and wrestle with the difference between law and justice.

Prerequisite(s): none

Corerequisite(s):none

MAT8003 Mathematics for Programming

The core foundation of all computer science is mathematics. Students examine elementary discrete mathematics for computer science, knowledge that forms the basis of algorithm and data structure efficiency analysis. Emphasis is on mathematical definitions, proofs, and applicable methods. The topics include formal logic notation, boolean logic, simple logic gates, proof methods, induction, well-ordering, sets, relations, elementary graph theory, integer congruences, asymptotic notation and growth of functions, permutations and combinations, counting principles, discrete probability, linear algebra and matrix theory.

Prerequisite(s): none
Corerequisite(s):none

MGT0107 Business Technology Management

Government and private sector organizations continuously undergo major transformation with respect to technology. Technology is a major enabler of these transformation initiatives. As a result, there is a growing need for professionals that can leverage technology to enable organizations to achieve strategic goals. These professionals possess the ability to bridge the gap between business and technology. Students develop business skills and understand the importance of aligning information technology to the business' objectives. Special attention is on discussing planning, decision-making, trends, alignment, optimization, processes and timing.

Prerequisite(s): BUS0007
Corerequisite(s):none

MGT4102 Business Fundamentals

In today's growing global economy, organizations are facing many new, diverse and competing challenges that have significant impact on their organizations. Students discover the essential management concepts of planning, organizing, leading and controlling. Other topics include human resources, strategy, decision making, ethics and social responsibility as well as organizational culture and change. Students apply various theoretical frameworks utilizing tools including case methodology, terms and discussions.

Prerequisite(s): none
Corerequisite(s):none

MGT4701 Advanced Business Statistics

With the unprecedented amount of data available, business analytics has become increasingly important in delivering value to businesses and changed the way organizations make decisions and run their operations. Building on the foundations of statistics, the areas of focus are design of experiments, analysis of variance, correlation, regression analysis, decision theory and time series forecasting.

Prerequisite(s): MGT4401 or QUA2000
Corerequisite(s):none

MGT6120 Entrepreneurship

Entrepreneurship and small business management are introduced from a Canadian perspective. Students develop the skills required to identify and evaluate a business opportunity; they investigate organizational structures of businesses and develop a business plan. A business simulation model provides the opportunity to practice and develop emerging entrepreneurial skills.

Prerequisite(s): ACC6104 and MKT6108 and MKT6111
Corerequisite(s):none

PHI1000 Logic and Critical Thinking

Logic and critical-thinking skills play an important role in both daily life and ongoing academic studies. As foundational skills, they support both the development and assessment of ideas,

concepts and courses of action that are presented on a daily basis. Approaching the subject from both a practical and theoretical perspective, students hone their skills in analysis, argumentation, reasoning and persuasion. A range of topics and thinkers provide material with which students can exercise and apply their skills.

Prerequisite(s): none
Corerequisite(s):none

PHI2000 Introduction to Research

Academic research requires students to possess a fundamental knowledge of accepted methodologies and practices. An overview of the research process and tools prepares students to engage in scholarly work. Emphasis is on evaluation, selection and documentation of primary and secondary sources, as well as the development of a research project.

Prerequisite(s): ENL1100 and PHI1000
Corerequisite(s):none

PHI2002 Ethical Decision Making

To avoid potential prosecution, companies and their employees are well-advised to engage in ethical decision-making practices in all business situations. Students examine ethical concepts and principles, compare a variety of ethical decision-making models and utilize these principles and models to make ethically sound decisions in a variety of contexts. Students also design a code of ethics, practice making ethically- based decisions and develop the analytical skills required to recognize, evaluate and resolve ethical dilemmas in the workplace.

Prerequisite(s): PHI1000
Corerequisite(s):none

PHI2002 Ethical Decision Making

To avoid potential prosecution, companies and their employees are well-advised to engage in ethical decision-making practices in all business situations. Students examine ethical concepts and principles, compare a variety of ethical decision-making models and utilize these principles and models to make ethically sound decisions in a variety of contexts. Students also design a code of ethics, practice making ethically- based decisions and develop the analytical skills required to recognize, evaluate and resolve ethical dilemmas in the workplace.

Prerequisite(s): PHI1000
Corerequisite(s):none

PHI4000 Philosophy and Popular Culture

Many facets of today's popular culture engage, directly or indirectly, with the concerns of a variety of philosophical traditions. Drawing on a number of examples, students explore both the way popular culture permeates and spreads through society and the way it interprets and presents philosophical questions. Students develop skills and techniques for assessing the soundness and validity of thought experiments.

Prerequisite(s): PHI1000
Corerequisite(s):none

PHI4000 Philosophy and Popular Culture

Many facets of today's popular culture engage, directly or indirectly, with the concerns of a variety of philosophical traditions. Drawing on a number of examples, students explore both the way popular culture permeates and spreads through society and the way it interprets and presents philosophical questions. Students develop skills and techniques for assessing the soundness and validity of thought experiments.

Prerequisite(s): PHI1000
Corerequisite(s):none

PHI4003 The Philosophy of Love and Sex

Love and sex are central to the human condition, and have been topics of academic inquiry and controversy throughout history. Various practices surrounding love and sex are celebrated in Western culture, such as monogamy and marriage, while other practices, such as polygamy and pedophilia, are condemned. Why is this? Students critically explore these and other issues surrounding love and sex using examples from popular music, movies and literature, framing those issues with the help of historical and contemporary philosophical theories and arguments. Students engage in various peer-oriented learning activities throughout the course.

Prerequisite(s): none

Corerequisite(s):none

PHI4003 The Philosophy of Love and Sex

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Prerequisite(s): none

Corerequisite(s):none

PHI4004 Technology,Society and the Environment

Environmental issues have come to occupy a central place in the marketplace, politics, policy, and society at large. Owing largely to the many environmental consequences that have accompanied industrialization, we humans have been forced to rethink the complex relationship between technology, society and the environment. Students investigate philosophical concepts and theories surrounding technology, society and the environment including: the "naturalness" of technology, sustainability and animal rights. Students critically examine course material by focusing on questions such as: What is nature, and what role do/should humans occupy in it? What do we owe non-human organisms? What do we owe future generations? Students engage in various peer-oriented learning activities throughout the course.

Prerequisite(s): none

Corerequisite(s):none

PHI4004 Technology,Society and the Environment

Environmental issues have come to occupy a central place in the marketplace, politics, policy, and society at large. Owing largely to the many environmental consequences that have accompanied industrialization, we humans have been forced to rethink the complex relationship between technology, society and the environment. Students investigate philosophical concepts and theories surrounding technology, society and the environment including: the "naturalness" of technology, sustainability and animal rights. Students critically examine course material by focusing on questions such as: What is nature, and what role do/should humans occupy in it? What do we owe non-human organisms? What do we owe future generations? Students engage in various peer-oriented learning activities throughout the course.

Prerequisite(s): none

Corerequisite(s):none

PHI4100 Survival in the Information Age: Risk and the Media

On an almost daily basis, the media, through its various outlets - television, radio, web sites, RSS, and podcasts - reports on issues that address our wellbeing. Through discussions, readings, and assignments, students enhance their ability to interpret and question information presented by the media by better understanding the inherent risks. Issues like alternative medicine (i.e. vaccinations)

and socio-legal issues (i.e. bullying, hacking, surveillance, privacy) provide grounds for students to use principles from the social science as a means to think critically about real and perceived risks in daily life.

Prerequisite(s): PHI1000
Corerequisite(s):none

PHI4100 Survival in the Information Age: Risk and the Media

On an almost daily basis, the media, through its various outlets - television, radio, web sites, RSS, and podcasts - reports on issues that address our wellbeing. Through discussions, readings, and assignments, students enhance their ability to interpret and question information presented by the media by better understanding the inherent risks. Issues like alternative medicine (i.e. vaccinations) and socio-legal issues (i.e. bullying, hacking, surveillance, privacy) provide grounds for students to use principles from the social science as a means to think critically about real and perceived risks in daily life.

Prerequisite(s): PHI1000
Corerequisite(s):none

PHY4000 Black Holes, Big Bangs and the Cosmos

The dynamic and exciting field of Cosmology outlines our current understanding of the Universe from its start, at the so-called Big Bang, through the ensuing 13 plus billion years to the present and beyond. Students learn how to discuss our present understanding of the three phases of the Universe as well as its five part make up, with matter making up only 4% of the whole. Students explain our knowledge of the various phases of evolution of the Cosmos and also the latest theories and experiments that are trying to address our uncertainties. Throughout the course, students evaluate and debate many of today's ideas and concepts revolving around cosmology.

Prerequisite(s): none
Corerequisite(s):none

PHY4000 Black Holes, Big Bangs and the Cosmos

The dynamic and exciting field of Cosmology outlines our current understanding of the Universe from its start, at the so-called Big Bang, through the ensuing 13 plus billion years to the present and beyond. Students learn how to discuss our present understanding of the three phases of the Universe as well as its five part make up, with matter making up only 4% of the whole. Students explain our knowledge of the various phases of evolution of the Cosmos and also the latest theories and experiments that are trying to address our uncertainties. Throughout the course, students evaluate and debate many of today's ideas and concepts revolving around cosmology.

Prerequisite(s): none
Corerequisite(s):none

PSI2000 Navigating Canada's Political Landscape

A developed knowledge of government and politics is key to an effective participation in public life. Drawing on current events, students explore the societal, cultural and constitutional context along with the major political parties and institutions that shape the Canadian political landscape. Students develop skills and techniques that allow them to position politicians, parties, and policies, past and present, on the spectrum of political ideology and Canadian political traditions. Working together and individually, students analyze issues from the perspective of various political approaches.

Prerequisite(s): none
Corerequisite(s):none

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Prerequisite(s): none

Corerequisite(s):none

PSY2100 Introductory Psychology

With its applications to behaviour and personality, psychology extends its reach into many aspects of our personal lives. The broad applications of this social science in both an applied and theoretical context are premised on a number of fundamental principles. Students explore historical breakthroughs that define the current boundaries of the discipline and interact with a number of the foundational concepts that resonate throughout daily life and popular culture. Students develop an introductory knowledge in the various schools of thought within the discipline.

Prerequisite(s): none

Corerequisite(s):none

PSY2100 Introductory Psychology

With its applications to behaviour and personality, psychology extends its reach into many aspects of our personal lives. The broad applications of this social science in both an applied and theoretical context are premised on a number of fundamental principles. Students explore historical breakthroughs that define the current boundaries of the discipline and interact with a number of the foundational concepts that resonate throughout daily life and popular culture. Students develop an introductory knowledge in the various schools of thought within the discipline.

Prerequisite(s): none

Corerequisite(s):none

QUA2000 Statistics

Students explore fundamental statistical concepts and use statistical software to summarize, analyze and present both descriptive and inferential statistics. Topics include central tendency, variation, probability, central limit theorem, sampling, estimation, hypothesis testing and simple regression and correlation. These theoretical concepts are explained through practical examples from various sectors. Students develop the required background for further study related to research.

Prerequisite(s): none

Corerequisite(s):none

SCI2000 Environmental Science

Environmental science is an interdisciplinary study of how the earth works, human interaction with the earth and how to address the existing environmental problems. Students explore natural capital and the degradation. Students engage in case studies, critical thinking and analysis of alternatives in exploring solutions and trade-offs in trying to address degradation.

Prerequisite(s): ENL1100 and PHI1000

Corerequisite(s):none

SCI2000 Environmental Science

Environmental science is an interdisciplinary study of how the earth works, human interaction with the earth and how to address the existing environmental problems. Students explore natural capital and the degradation. Students engage in case studies, critical thinking and analysis of alternatives in exploring solutions and trade-offs in trying to address degradation.

Prerequisite(s): ENL1100 and PHI1000

Corerequisite(s):none

SOC2000 Introduction to Sociology

When working with individuals and groups it is important to understand both the background and influences present. Students develop a familiarity with sociological theories and methodological approaches used to study individual and group behaviours. Students also examine variables that include culture, social class, race, and gender and how these variables may impact work with diverse individuals and groups.

Prerequisite(s): ENL1100

Corerequisite(s):none

SOC2000 Introduction to Sociology

When working with individuals and groups it is important to understand both the background and influences present. Students develop a familiarity with sociological theories and methodological approaches used to study individual and group behaviours. Students also examine variables that include culture, social class, race, and gender and how these variables may impact work with diverse individuals and groups.

Prerequisite(s): ENL1100

Corerequisite(s):none

SOC2001 Anti-Racism: Theory and Practice

Anti-racism is the practice of identifying, challenging, and changing the values, structures, and behaviours that perpetuate systemic racism. Students explore concepts of anti-oppressive practice, anti-racist pedagogy, diversity, and inclusion at the personal, societal, and institutional levels. Students develop an understanding of historical and present-day groups and figures that challenge oppressive structures in Canadian society. Through various learning activities and discussion boards, students will develop the necessary knowledge, attitude, and skills to become an authentic ally within society.

Prerequisite(s): none

Corerequisite(s):none

SOC2001 Anti-Racism: Theory and Practice

Anti-racism is the practice of identifying, challenging, and changing the values, structures, and behaviours that perpetuate systemic racism. Students explore concepts of anti-oppressive practice, anti-racist pedagogy, diversity, and inclusion at the personal, societal, and institutional levels. Students develop an understanding of historical and present-day groups and figures that challenge oppressive structures in Canadian society. Through various learning activities and discussion boards, students will develop the necessary knowledge, attitude, and skills to become an authentic ally within society.

Prerequisite(s): none

Corerequisite(s):none

SOC4000 Criminology

The interdisciplinary study of social science examining the individual and social aspects of crime is known as criminology. Students work through an introduction to the social science perspective on crime. Presentations, discussions, and assignments allow students to investigate the various theoretical positions related to crime and criminal behaviour. Working forward from the types and definitions of crime, students trace some of the links between government policy and the impacts of these policies on both society and the individual.

Prerequisite(s): SOC2000

Corerequisite(s):none

SOC4000 Criminology

The interdisciplinary study of social science examining the individual and social aspects of crime is known as criminology. Students work through an introduction to the social science perspective on crime. Presentations, discussions, and assignments allow students to investigate the various theoretical positions related to crime and criminal behaviour. Working forward from the types and definitions of crime, students trace some of the links between government policy and the impacts of these policies on both society and the individual.

Prerequisite(s): SOC2000

Corerequisite(s):none

SOC4001 Global Perspectives

Sociology, through its exploration of the organization of society and the connections between people and their surroundings, provides new ways of looking at the world. Using fundamental knowledge in the field of sociology, students analyze globalization and its impact on Canadian society. Students take opposing views to debate the opportunities and challenges that come with globalization.

Prerequisite(s): SOC2000

Corerequisite(s):none

SOC4001 Global Perspectives

Sociology, through its exploration of the organization of society and the connections between people and their surroundings, provides new ways of looking at the world. Using fundamental knowledge in the field of sociology, students analyze globalization and its impact on Canadian society. Students take opposing views to debate the opportunities and challenges that come with globalization.

Prerequisite(s): SOC2000

Corerequisite(s):none

WKT0009 Co-Op I

The first co-op placement provides students with experiential opportunities within the field. Students attain entry-level positions that involve a variety of activities allowing application of principles and concepts developed during previous study. Students returning from Co-op I bring additional practical considerations to subsequent study. Although centred with public and private organizations located in Eastern Ontario, co-op employment opportunities may be sought throughout Canada and abroad.

Prerequisite(s): CAD8202 and CST8203 and ELN8304

Corerequisite(s):none