Electronic Business

The PhD program in Electronic Business is offered under the auspices of the Faculty of Graduate and Postdoctoral Studies (FGPS), the Telfer School of Management, the School of Electrical and Computer Engineering, the Faculty of Law and the Faculty of Arts. It is offered on a full-time basis in the following three fields:

Electronic Business (e-Business)
Electronic Technologies (e-Technologies)
Electronic Society (e-Society)

Information on the fields and research interests of the professors is posted on the program website.

The program is governed by the general regulations of the Faculty of Graduate and Postdoctoral Studies (FGPS).

Program

Doctorate in Philosophy Electronic Business

Professors

Adams, Carlisle, Full Professor
Cryptography; network security; computer security; access control; privacy

Amyot, Daniel, Full Professor
Software and requirements engineering; Modelng with goals and scenario; Aspects, Business Process Management, Medical Informatics

Angus, Douglas, Full Professor
Health economics and policy; strategic management; health care management

Bélanger, Pierre, Full Professor
Diffusion and appropriation of new technologies; Canadian broadcasting and telecommunication policies; Canadian media industries and strategies; media and national identities; socio semantic of Web 2.0

Ben Amor, Sarah, Associate Professor

Benyoucef, Morad, Associate Professor
Software engineering; Internet technologies; E-Business; E-Commerce; Web services; Workflow management

Bochmann, Gregor, Full Professor
Communication protocols; software engineering; formal specifications; verification and validation; distributed applications and systems management; multimedia; high-speed networks; real-time systems

Boily, Lise, Full Professor
Culture and communication; post modernity and chance; communication and globalization; ICTs and knowledge economy; woman and media

Bolic, Miodrag
Computer architectures; signal processing; wireless communications
Bonin, Genevieve, Assistant Professor
Radio broadcasting and media industries; Evaluation and accountability in organizations; Media policy and governance; Journalism practices in the digital environment, History of communication and journalism

Boukerche, Azzedine, Full Professor
Large scale distributed interactive simulation systems; Mobile computing and networking

Bowker, Lynne, Full Professor
Machine (-assisted) translation; corpus linguistics; terminology; translation pedagogy; organization of information

Calof, Jonathan, Associate Professor
International competitive intelligence; application of knowledge for innovation

Cavanagh, Mary, Associate Professor
Institutionality of the public library; practice-based organizing and managing; integrated information management and evaluation

Chreim, Samia, Associate Professor
Institutional and organizational change; organizational identity and discourse; top and middle management dynamics; mergers and acquisitions

Dormann, Claire, Assistant Professor
Serious games (videogames, game-based learning, urban and mobile games); technology-enhanced learning, affective learning; affective and social computing, affective design; human-computer interaction

Eid, Mahmoud, Associate Professor
International; transnational; intercultural; and political communication; theories of communication; quantitative and qualitative research methods (media effects, audience research, social development, and public opinion), conflict resolution; crisis management; and terrorism control; international relations; political decision-making; and game theory; Middle East politics; Arabic media; and Islamic culture; media ethics and social responsibility

El Emam, Khaled, Cross-appointment
Understanding the human, organizational, and technological factors that affect the quality and utility of data contained in electronic health records

El Saddik, Abdulmotaleb, Full Professor
Web engineering; multimedia communications; tele-collaborative environments; internationalization

Felty, Amy, Cross-appointment
Theorem proving; automated deduction; formal methods in software engineering; computational logic

Flocchini, Paola, Full Professor
Distributed computing; distributed algorithms; structural information; sense of direction; mobile computing; cellular automata; discrete chaos

Groza, Voicu, Full Professor
Real-time embedded systems; smart sensors networks; multimedia communications; distributed intelligence; instrumentation

Hall, Trevor, Full Professor
Photonic networks and switches; material; device; and component technologies; dynamics & control of complex systems; photonic science

Hamzaoui, Leila, Associate Professor
Consumer Behaviour; Brand Management; International Marketing

Inkpen, Diana, Full Professor
Natural language understanding, natural language generation, lexical semantics, information extraction, speech technology, intelligent agents for the semantic web

Ionescu, Dan, Full Professor
Machine vision, real time systems, formal methods, models for software specification, verification

Jourdan, Guy-Vincent, Associate Professor
Distributed systems; software verification; validation and testing; partially ordered sets; data visualization

Kuziemsky, Craig, Associate Professor
Health management, information and communication technologies (ICTs) for collaborative healthcare delivery

Labasse, Bertrand, Associate Professor
Diffusion textuelle des connaissances complexes; médialisation, communication et réception des œuvres; épistémologie et psycholinguistique de l’écrit; théories de l’adéquation sociocognitive

Lajili-Kobeissi, Kaouthar, Associate Professor
Corporate financial disclosure; intangible assets; risk management; corporate governance

Leck, Joanne, Full Professor
Workplace violence; employment equity; mentoring; managing diversity

Lee, Wonsook, Associate Professor
Computer graphics, human design and animation, medical applications

Lethbridge, Timothy, Full Professor
Software modeling, code generation, software usability, software engineering education

Lévy, Pierre, Full Professor
Cyberculture; knowledge management; theory of communication, design and implementation of universal architecture information able to enhance the collaborative processes in cyberspace and to support the mapping and simulation of collective intelligence in the WWW

Linton, Jonathan, Full Professor
Breaches to traditional assumptions in operations that occur while dealing with emerging technologies and innovation

Luppicini, Rocci, Associate Professor
Distance education and virtual communities; technoeconomics; science and technology studies (sts); instructional design and organizational training, qualitative and mixed methods research

Mao, Yongyi, Assistant Professor
Machine learning, communications, coding and information theory

Matwin, Stanislaw, Full Professor
Artificial intelligence; knowledge-based systems; machine learning; software reuse

Mignerat, Muriel, Associate Professor
Information systems (IS) phenomena; IS project management practices and their evolution; IS consulting and psychological contracts; IT productivity paradox in health, IT productivity paradox in health

Miles, Michael, Assistant Professor
Managing organizational behaviour and human resources; management skills (basic and advanced levels); models of public and social governance; organization design; managing change

Mouftah, Hussein, Distinguished University Professor
Computer networks, optical networking, wireless ad hoc and embedded sensor networks, routing algorithms and protocols, simulation, performance evaluation

Orser, Barbara, Full Professor
Enterprise growth; including entrepreneurial decision making; internationalization of SMEs; small business policy; and finance

Paré, Daniel, Associate Professor
Internet governance and regulation; political economy of ICTs; science & technology policy

Persaud, Ajax, Associate Professor
New product management; technology and innovation; Research and development management

Petriu, Emil, Full Professor
Intelligent sensors and networks; robot sensing and perception; neural networks and fuzzy systems; interactive virtual environments; digital integrated circuit testing

Peyton, Liam
E-commerce; business process automation; compliance with privacy policies that integrates metrics; knowledge management; data mining and mobile computing support

Raahemi, Bijan, Associate Professor
Information systems; data mining and knowledge discovery; data communications networks and services; systems modeling; simulation; and
performance analysis

Riding, Allan, Full Professor
Entrepreneurship, Small business, SME financing

Ruhí, Umar, Assistant Professor
Research interests lie at the intersection of Information Systems and Knowledge Management; Empirical research projects are predicated upon an interdisciplinary perspective grounded within the milieu of social informatics.

Samaan, Nancy, Assistant Professor
Wireless communication and mobile networking; QoS in wired and wireless networks; network management; autonomic networks; mapping network-related business level objectives; policy-based management; networking solutions to e-business applications

Shirmohammadi, Shervin
Multimedia communications; telecollaborations; Web based multimedia tools; virtual environments

Some, Stéphane
A distributed object oriented environment programming methodology

Spence, Martine, Full Professor
International/small high growth and traditional firms; global firms and sustainable entrepreneurship

Tran, Thomas
Artificial intelligence; electronic commerce; multi-agent systems; autonomous agents; reinforcement learning; trust and reputation modelling; recommender systems

Viktor, Herna, Associate Professor
Data Mining; data warehousing; data and information quality

Yeap, Tet, Associate Professor
Wireless communication; application specific VLSI architectures; high capacity wireline and wireless access; neural networks; communication systems

Zeghal, Daniel, Full Professor
Business risk-management; business control systems; corporate governance; management control in public organizations, Information disclosure in financial statements and annual reports; corporate social performance; international financial information; environmental information communication and accountability, Intangibles; knowledge and intellectual assets

Zhao, Jiying
Image and video processing; signal processing; multimedia communications

Admission

Doctorate

To be considered for admission, applicants must:

Hold one of the following master’s degrees with thesis: MSc in e-Business Technologies, in Management, in Health Systems, or in Systems Science; or an MASc in Electrical and Computer Engineering; or a Master of Computer Science; or a Master of Information Studies; or an MA in Communication; or a master’s in a related relevant discipline;

Have an admission average of at least 8.0 (A-) calculated in accordance with FGPS regulations;

Provide two confidential letters of recommendation;

Provide a CV;

Identify at least one professor in the program whose research interests correspond to theirs;
Provide a statement of their research interests and their proposed field (Electronic Business, Electronic Technologies, or Electronic Society).

Exceptionally, applicants holding a master’s degree without thesis may be considered provided their file includes scholarly publications or equivalent evidence of their capacity for advanced research.

**Additional Coursework**

Students whose master’s degree was in an area other than Electronic Business Technologies may be required to take up to 12 units of additional courses beyond the 9 units normally required for the PhD. The additional coursework would consist of the following:

- EBC 7100 Research Methods in e-Business Technologies, or an equivalent course.
- At least one course (3 units) in a field other than the candidate’s chosen field of research, to be chosen from the list of field designated courses in the program.
- The additional coursework is defined by the Admissions Committee, in consultation with the potential supervisor and the Graduate Studies Committee, and is specified in the student’s letter of admission.

**Language Requirements**

The program is offered mainly in English. Candidates whose first language is not English must submit evidence of proficiency by providing any of the documents in the following list:

- A score of at least 600 on the paper version of the Test of English as a Foreign Language (TOEFL), with a score of at least 5 on the Test of Written English (TWE) and a score of at least 50 on the Test of Spoken English (TSE). The TOEFL is administered by Educational Testing Service, Box 899, Princeton, New Jersey, USA, 08540; see also www.web1.toefl.org.
- A score of at least 7 in at least three of the four International English Language Testing System (IELTS) tests (Reading, Listening, Writing, Speaking) and at least 6 in the fourth. The IELTS is administered by the British Council: www.ielts.org.
- A score of at least 14 on the CANTEST, administered by the University of Ottawa, with no individual test score below 4.0, along with a score of 4.5 on the oral component of the test.
- Proof of completion within the last five years of a previous degree program in an English language university.
- Proof of recent prolonged residence and exercise of a profession in an English speaking country (normally at least four years over the last six years).

In accordance with the University of Ottawa regulation, students have a right to produce their work, their thesis, and to answer examination questions in French or in English.

**Fast-track from Master’s to PhD program**

Students enrolled in the MSc program in E-Business Technologies at the University of Ottawa may be allowed to fast-track to the PhD program without being required to write a master’s thesis, provided they meet the following conditions:

- Completion of 21 units of core MSc courses with a minimum average of 8.5
- Satisfactory progress in the research program
- Submission and successful defence of a well-developed research proposal
- Written recommendation from the proposed PhD thesis supervisor (and co-supervisor if applicable) and another professor in the program
- Written recommendation from the Graduate Program committee

Students must request permission to fast-track during the third term (session) of enrollment or earlier and, if approved, must enroll in the PhD in the fourth term (session). To receive the doctorate, students must successfully complete 30 units of courses (MSc + PhD), the comprehensive examination, the thesis proposal and the thesis.
Program Requirements

Doctorate

The requirements of the PhD program in e-Business include successful completion of 9 units of coursework, a comprehensive examination, a thesis proposal and a thesis, as follows:

Compulsory courses (6 units)

EBC8101 INTERDISCIPLINARY DOCTORAL SEMINAR IN E-BUSINESS I (3 units)
EBC8102 INTERDISCIPLINARY DOCTORAL SEMINAR IN E-BUSINESS II (3 units)

Optional course (3 units)

The optional course must be selected from the list of courses in the student’s chosen field and must be preapproved by the Thesis Advisory Committee.

EBC9998 COMPREHENSIVE EXAMINATION

The Comprehensive Examination is a two-part examination (written and oral) that is overseen by the Advisory Committee. Once the written exam has been passed, the student proceeds to the oral. A student who fails either component of the exam is allowed to repeat it the following term (session). A second failure in either component leads to withdrawal from the program. The Comprehensive Examination must normally be completed within 4 terms (sessions) of commencing the program and, at the latest, by the end of the fifth term (session). Failure to sit and pass the examination by the deadline counts as a failure.

Further details about the comprehensive exam are posted on the program’s Website.

EBC9997 THESIS PROPOSAL

The thesis proposal, prepared under the direction of the thesis supervisor, must be defended to the satisfaction of the Thesis Advisory Committee (TAC). The proposal must normally be successfully completed by the end of the fifth term (session). In the event of failure, the proposal can be resubmitted and defended the following term (session) at the latest. A second failure leads to withdrawal from the program. The proposal must be successfully defended before submitting it to the Research Ethics Board (if required) and before undertaking any independent data collection.

Further details about the thesis proposal are posted on the program Website.

EBC9999 THESIS

Additional coursework

The requirements outlined above are a minimum. For information about additional courses, please see the Admission section.

Duration of the program

The requirements of the program are usually fulfilled within four years. The maximum time permitted is six years from the date of initial enrollment in the program, or seven years in the case of the students fast-tracked from the master’s to the doctorate.

Residence

All students must complete a minimum of six terms (sessions) of full-time enrollment at the beginning of the program or nine terms (sessions) in the case of being fast-tracked.
Minimum standards

The passing grade in all courses is 65% (C+). Students who fail two courses (equivalent to 6 units), the comprehensive exam, the thesis proposal, the thesis or whose progress is deemed unsatisfactory must withdraw from the program.

Thesis Advisory Committee (TAC)

During the first term (session), a thesis advisory committee (consisting of the thesis supervisor and at least two other professors who must be members of the program) is assigned in consultation with the student. The three committee members must cover at least two of the three fields in the program. The composition of the committee must be approved by the Program Director. This committee is responsible for providing advice throughout the program, including on academic integrity and research ethics. The student meets with the TAC at least once a year and receives a report from the Committee following each meeting.

Courses

Courses by field

**Electronic Business**

ADM6274 INTERNATIONAL E-BUSINESS STRATEGIES (1.5 units)
International trends in the global economy together with assessment of risks, and associated international e-business opportunities. Strategies for translating international opportunities into e-businesses, including localizing international web-based content, developing international supply networks, international crowdsourcing, international payments and international collaboration. How to address local laws on privacy, intellectual property and business contracts. **Prerequisite: MBA 5270 (for EMP, MBA and MHA students).**

ADM6275 BUSINESS INTELLIGENCE TECHNOLOGIES AND BIG DATA ANALYTICS (1.5 units)
Business Intelligence (BI) as a concept; review of major BI tools and methods; identification of the right types of BI for different types of decision making environments; Introduction to Big Data; Business applications of Big Data; review of the supporting technologies such as data bases and data warehouses and Big Data Platforms for integrating structured and unstructured data including Hadoop, sandbox analytics; Streaming Analytics, and advances in data warehousing appliances that accelerate analytics. **Prerequisite: MBA5270 (for EMP, MBA and MHA students).**

ADM6279 SOCIO-TECHNICAL CHANGE (1.5 units)
This course explores the structural-, cultural- and process-based organizational change management challenges facing business strategists during new technology implementation initiatives. Toward this, the course draws upon management frameworks, support tools and best practices for the joint optimization of technology and social subsystems within organizations. Adopting a complex adaptive system viewpoint of the organization, the course will highlight issues of technological and social embeddedness, and illustrate the use of configuration modeling and analysis tools for enterprise engineering and strategy models to facilitate change sustainability and continuity.

ADM6420 ELECTRONIC MARKETING (1.5 units)

CMN5150 KNOWLEDGE MANAGEMENT (3 units)
Research directions in organizational learning, collective intelligence and information architecture, situated in the technical context of the general digitization of communication and the socio-cultural context of knowledge societies and human development policies. Interdisciplinary perspectives. Case studies from the work place, education, health, and cultural industries.

EBC6180 ELECTRONIC HUMAN RESOURCES MANAGEMENT (1.5 units)
The human resource functions needed for technology. Recruitment and selection via the internet. Internet and intranet applications for training personnel and enabling self-management. Measurement and management of employee performance using web-based applications. Using the web to maximize knowledge acquisition and sharing among employees. Knowing when and when not to use technology to effectively manage human resources.

EBC6210 ELECTRONIC COMMERCE ARCHITECTURE (1.5 units)
Internet and m-Business. Intermediaries and Software Agents. XML applications.

**EBC6230 BUSINESS PROCESS MANAGEMENT TECHNOLOGIES AND APPLICATIONS** (1.5 units)
Introduction to Business Process Management Technologies. Review of the latest concepts for using technology to improve performance of business processes. Analysis of advances in Internet-enabled B2B and enterprise business models with emphasis on service-oriented and event-driven architecture. Example applications from supply chain management, order processing, and health care process management will be studied.

**EBC6240 MOBILE COMMERCE** (1.5 units)

**EBC7100 RESEARCH METHODS IN ELECTRONIC BUSINESS TECHNOLOGIES** (3 units)

**ISI6342 WEB ARCHITECTURE AND TECHNOLOGIES** (3 units)
Design and management of websites information architecture as it pertains to website design and the web environment. The course examines methodologies applied in information organization, website design, and evaluation of the user experience, as well as state of the art software tools supporting website design and management. (Prerequisites: 12 credits among compulsory core courses or permission of the School of Information Studies) (Formerly: ISI6127)

**MGT5101 MULTIVARIATE RESEARCH METHODS** (3 units)
Analysis of the basic multivariate techniques that are often used in the social and life sciences in order to enable students to apply the correct technique to any given set of data, properly interpret the output of statistical computer packages, and understand and critique scientific papers that use these techniques. Topics will include principal components analysis, factor analysis, multivariate analysis of variance, multiple and logistic regression, log-linear analysis, and introduction to structural equation modeling.

**MGT5102 QUALITATIVE RESEARCH METHODS** (3 units)
Designing qualitative studies, collecting and analyzing qualitative data, attaining research credibility, and writing a qualitative research report. Topics will include the case study, ethnography, phenomenology and grounded theory. Introduction to the use of qualitative data analysis software (such as N-Vivo). Critical evaluation of qualitative studies. *Exclusion: MGT7302*

**MHA6370 INTRODUCTION TO HEALTH INFORMATICS** (3 units)
Overview of current developments, issues and challenges in the emerging field of health informatics. Historical development as well as basic foundations of health informatics including theoretical, methodological and ethical/legal underpinnings will be studied. Critical examination of information management principles and methods in Canadian health care organizations both public and private. Emerging applications in health informatics as well as approaches to understanding and evaluating these applications. Identification of the issues that CIO’s face in their attempts to provide the right information to the right people, at the right time.

**MHA6271 TECHNOLOGY AS AN INSTRUMENT OF CHANGE IN HEALTH CARE** (1.5 units)
Discusses research on the implementation of contemporary health information technologies (IT) and their role in improving, transforming and supporting the delivery of health services: computer-based patient records, computerized order entry and results reporting, clinical services applications (lab, pharmacy, radiology- PACS), clinical decision support systems, nursing information systems, telemedicine and telehealth applications, e-health applications, (including end-users involvement, implementation aspects, alignment with work practices), inherent risks associated with application of IT in healthcare, information security and privacy. IT impacts and challenges, issues related to IT assessment and evaluation in healthcare. Technology as an enabler of change supporting process standardization using Business Process Orchestration Technologies to create a foundation for optimization and active process management. *Prerequisite: MHA 6370*

**MHS6380 SYSTEMS ANALYSIS, MODELING, AND DECISION SUPPORT IN HEALTH** (3 units)
Review of Checkland’s soft-systems modeling methodology and of other systems approaches. Study of systems analysis in the broader context of modeling complex systems and of techniques for providing decisional support at macro and micro levels, including support of clinical decisions. Oral and written reports required.

**SYS5110 FOUNDATIONS OF MODELLING AND SIMULATION** (3 units)
Fundamental aspects of systems modelling and the simulation process. Elements of continuous system simulation. Issues relating to the numerical solution of ordinary differential equations. Elements of discrete event simulation Generation of random numbers and variates. Simulation validation and quality assurance. Introduction to simulation languages. *Prerequisites: CSI1100 and MAT2341 and (MAT2324 or MAT 2331) and MAT2371 and MAT2375.*
Electronic Technologies

**CSIS105 (COMP 5406) NETWORK SECURITY AND CRYPTOGRAPHY** (3 units)
Advanced methodologies selected from symmetric and public key cryptography, network security protocols and infrastructure, identification, secret-sharing, anonymity, intrusion detection, firewalls, defending network attacks and performance in communication networks. Prerequisites: familiarity with basic concepts in networks, network security, and applied cryptography. For example, relevant background courses may include the following (or equivalents): CEG 4185 or COMP 3203 and/or CSI 4138 or CEG 4394 or COMP 4108, and/or CSI 4108 or ELG 5373 or COMP 4109.

**CSIS175 MOBILE COMMERCE TECHNOLOGIES** (3 units)
Wireless networks support for m-commerce; m-commerce architectures and applications; mobile payment support systems; business models; mobile devices and their operating systems; mobile content presentation; security issues and solutions; relevant cross layer standards and protocols; case studies. Exclusion: EBC5175

**CSIS380 (COMP 5405) SYSTEMS AND ARCHITECTURES FOR ELECTRONIC COMMERCE** (3 units)

**CSIS387 (COMP 5706) DATA MINING AND CONCEPT LEARNING** (3 units)

**CSIS389 (COMP 5401) ELECTRONIC COMMERCE TECHNOLOGIES** (3 units)

**CSIS515 (COMP 5503) DATABASE ANALYSIS AND DESIGN** (3 units)
The dimensional and multidimensional data models for data warehousing. Data dependencies and decomposition. Structure and use of data definition and manipulation languages. Database economics, engineering, deployment and evolution. Issues in integrity, security, the Internet and distributed databases. Relationships to decision support systems. Prerequisite: CSI3317 or equivalent

**EBC6130 WEB SERVICES** (1.5 units)
Web services business models and strategies. Enterprise Application Integration and Service Oriented Architectures. Web services technology standards. Consumer and enterprise adoption of web service technologies and platforms such as Mashups and Cloud Computing. Prerequisites: ADM6267, CSIS389

**EBC6170 INTERNET SECURITY** (1.5 units)
User, data and network security principles. Information systems security standards. Security risk analysis frameworks. Fundamentals of Internet security mechanisms including authentication, access control, data encryption and integrity, and Public Key Infrastructure. Internet security including security in the wireless environment. Payment card industry security standards and compliance.

**EBC6220 DATA MINING FOR BUSINESS APPLICATIONS** (1.5 units)
Introduction to business data collection, data pre-processing, data warehouses, data marts, and online analytical processing. Data mining tasks including classification, clustering and association rules. Data mining model building, tools and techniques including decision trees, neural networks, and regression analysis. Application of these techniques in business including CRM, target marketing, credit scoring, churn, survival analysis, and fraud detection.

**EBC6250 DOCUMENT ENGINEERING FOR E-BUSINESS** (1.5 units)

**ELGS121 (EACJ 5201) MULTIMEDIA COMMUNICATIONS** (3 units)
ELG5373 (EACJ 5105) DATA ENCRYPTION (3 units)
Prerequisite: ELGS119 or SYSC5503 or the equivalent

GNG5121 PLANNING OF EXPERIMENTS IN ENGINEERING DESIGN (3 units)
Two-level statistical experimental methods as applied to engineering design; analysis of means, analysis of variance, contrasts, multifactorial analysis of variance, fractional factorial design, screening designs, product variation and an introduction to the Taguchi approach.

GNG5122 OPERATIONAL EXCELLENCE AND LEAN SIX SIGMA (3 units)
Lean Six Sigma Green Belt tools and techniques, operational efficiency, waste and variability reduction, continuous improvement, the pursuit of perfection. DMAIC (define, measure, analyze, improve and control), process mapping, data collection and analysis, root cause problem solving, the cost of quality, mistake proofing, change management.

GNG5123 ENTERPRISE ARCHITECTURE (3 units)
Enterprise architecture as a rigorous planning methodology that harmonizes and integrates the needs of society, management, and engineering in both business and government. Based on an analysis of currently available frameworks and standards, the course will address the design of enterprise business architectures and the derivation of supporting information systems infrastructure.

Electronic Society

CMN5105 CONTEMPORARY COMMUNICATION ISSUES (3 units)
State of the art of the discipline. Exploration of major domains of communication research, along with contemporary issues being addressed by scholars in these fields of specialization.

CMN5110 SOCIAL HISTORY OF COMMUNICATION TECHNOLOGIES (3 units)
Exploration of the social, political, economic, cultural and ethical ramifications of communication technologies as they have evolved over time. Relationship between innovation in new communication technologies and social and cultural change.

CMN5115 COMMUNICATION ETHICS (3 units)
Emphasis on the significance of ethical principles and responsibilities of public communicators, as well as sanctions faced when communicators fail to uphold these principles. Critique of self-regulation of the media. Analysis of argumentation. Study of legal precedents with respect to defamation.

CMN5130 DIVERSITY IN THE WORKPLACE : COMMUNICATION CHALLENGES (3 units)
Theories and pragmatics of intercultural communication as applicable to various forms of communication (verbal and nonverbal ) between and among individuals of different ethnicities, races, cultures, age groups, sexual orientations, genders, classes, abilities, language, religion, and value orientations. Focused on workplace interactions.

CMN5131 ORGANIZATIONAL COMMUNICATION THEORIES (3 units)
Different approaches (e.g., interactionist, narrative, critical) to organizational communication research, with a focus on benchmark studies and key researchers. Role of theories in understanding communication challenges faced by contemporary organizations. Issues related to communication networks, organizational learning, management of diversity, computerization of organizations, and management of risks, among others.

CMN5133 HEALTH COMMUNICATION THEORIES (3 units)
Concepts, research, and theories regarding health communication issues at the micro level (e.g., interactions between patient and healthcare provider), mezzo level (e.g., role of information in healthcare organizations) and macro level (e.g., role of media in shaping public perceptions of health and illness). Qualitative, quantitative, and mixed-method research, with a stress on interdisciplinary approaches to health communication and public health research.

CMN5136 VIRTUAL WORK TEAMS (3 units)
Theoretical and practical issues raised by the integration of mediated and distance communication into the work place, including those specific to the functioning of virtual teams (e.g., E-leadership, cohesion, communication, and trust).

CMN5140 COMMUNICATION, GLOBALIZATION AND CHANGE (3 units)
Impact of information and communication technologies and political, cultural, and global dynamics on organizations. Theoretical and critical reflections on the strategic management of change in organizations, the transformation of organizational cultures, and intervention practices. Case studies of hybrid cultures.
DCL7301 REGULATION OF INTERNET COMMERCE (3 units)
Seminar analyzing the legal challenges posed by the Internet to the traditional commercial law framework. Topics include intellectual property issues, on-line contracts, digital signatures, taxation, securities regulation, and the provision of online legal services.

ISI5304 INFORMATION RESOURCE DISCOVERY (3 units)
Theories and models relating to information seeking and use within both individual and institutional contexts. The course addresses the identification and representation of information needs, search strategies and techniques, ethical issues, and evaluation methods all within a variety of user communities and technological settings. The course also examines the information mediation process and services that facilitate information access. (Formerly: ISI5104)

ISI5305 MANAGEMENT FOUNDATIONS FOR THE INFORMATION PROFESSIONAL (3 units)
Core management theories, principles, and methods used to effectively plan, deliver, and control the provision of information services. The course addresses strategic planning, project management, human and financial management, collaboration and team building, communications and marketing, and the evaluation of programs and services. (Formerly: ISI5103)

ISI6310 ETHICS, VALUES AND INFORMATION DILEMMAS (3 units)
Exploration of major ethical concerns currently confronting our information society. The course examines the moral and ethical values involved in information and technology-related situations faced by today’s information professionals and agencies, and provides an opportunity to apply ethical theories to situations involving issues such as freedom of expression, censorship, intellectual property rights, equitable access, and privacy. (Formerly: ISI5160) Prerequisites: 12 credits among compulsory core courses or permission of the School of Information Studies.

ISI6351 SOCIAL MEDIA (3 units)
Exploration of social media technologies and how they are changing the way we learn, communicate, interact, and share information. The course assesses the implications of social media for individuals, organizations, social networks, and communities, and examines how social media can be used to develop innovative information services and applications. (Formerly: ISI6129) Prerequisites: 12 credits among compulsory core courses or permission of the School of Information Studies.

PhD courses

EBC8101 INTERDISCIPLINARY DOCTORAL SEMINAR IN E-BUSINESS I (3 units)
Recent developments in e-Business applications and research. Critical analysis of theories, models, and methods. Critical synthesis of the field literature from different perspectives. Students will write a systematic survey paper of the literature relevant to their research in one of the three fields of the program. The paper must be in a different field from that selected for the paper in EBC8102. Course reserved for students in the EBC PhD program.

EBC8102 INTERDISCIPLINARY DOCTORAL SEMINAR IN E-BUSINESS II (3 units)
Recent developments in e-Business applications and research. Critical analysis of theories, models, and methods. Critical synthesis of the field literature from different perspectives. Students will write a systematic survey paper of the literature relevant to their research in one of the three fields of the program. The paper must be in a different field from that selected for the paper in EBC8101. Course reserved for students in the EBC PhD program.

EBC9997 PROJET DE THÈSE / THESIS PROPOSAL
Préalable / Prerequisite: EBC9998

EBC9998 EXAMEN GÉNÉRAL DE DOCTORAT / COMPREHENSIVE EXAM

EBC9999 THÈSE DE DOCTORAT / DOCTORAL THESIS
Préalables / Prerequisites : EBC9997 et EBC9998