INNOVATION ET TRANSFORMATION NUMÉRIQUE (DTI)

Les cours suivants sont offerts par la Faculté de génie.

DTI 5100 Introductory Seminar (1.5 unit)
Course Component: Seminar

DTI 5115 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.

Course Component: Seminar

DTI 5124 Internet Technologies and Mobile Commerce (3 units)
An examination of current Internet technologies, protocols and wired and wireless infrastructures. Analysis of current Internet-based businesses and consumer applications and services. Discussion of mobile commerce business models and strategies and their relevant technologies. Hands-on experience with discussed technologies and applications. Students will complete a project demonstrating and analyzing how an Internet-based application or service could be applied in their field of graduate study.

Course Component: Lecture
The courses DTI 5124, GNG 5124 cannot be combined for units.

DTI 5125 Data Science Applications (3 units)
Analysis and design of various data cleaning, wrangling, blending, and visualization, statistical inference, classification, clustering, regression, and content analysis methods. Use of machine learning algorithms to extract meaningful information from data to make decisions. Formulating analytics problems for business and developing, evaluating, and maintaining machine learning models. Analyzing, generating, and communicating insights on the models. Hands-on experience with an integrated set of current data analytics, data mining, and machine learning tools.

Course Component: Lecture
The courses CSI 5155, CSI 5387, DTI 5125, DTI 5126, GNG 5125, GNG 5126 cannot be combined for units.

DTI 5126 Fundamentals for Applied Data Science (3 units)
Essential data science concepts relevant to practical applications are covered including: problem formulation; data acquisition; data pre-processing, modeling and statistical analysis. Hands on experience with data science tools and techniques including: supervised and unsupervised machine learning; presentation of results; applications in areas such as accounting, finance, marketing and supply chain management.

Course Component: Lecture
The courses DTI 5126, DTI 5125, MIA 5126 cannot be combined for units.

DTI 5175 Mobile Commerce Technologies (3 units)

Course Component: Lecture

DTI 5310 Ethics for Design, AI, and Robotics (3 units)
Artificial Intelligence technologies are becoming ever more present in applications like: automated vehicles and mobility-as-a-service (e.g. driving and system-level control algorithms); business intelligence (e.g. predictive resource allocation); consumer electronics (e.g. social robots and smart speakers); healthcare (e.g. image classification in medical imaging); the justice system (e.g. recidivism prediction and sentencing); and weapons systems (e.g. targeting and kill decision-making). Many of these applications are raising significant ethical concerns. A range of topics in applied technology ethics are examined through the lens of contemporary philosophy and applied ethics texts and popular media articles. Practical frameworks, methodologies and tools for anticipating, and addressing, ethical issues are introduced through hands-on, group-based design thinking workshops and projects.

Course Component: Lecture
The courses CSI 5195, DTI 5310, DTO 5310 cannot be combined for units.

DTI 5380 Systems and Architectures for Electronic Commerce (3 units)

Course Component: Lecture

DTI 5389 Electronic Commerce Technologies (3 units)

Course Component: Lecture
The courses DTI 5389, DTO 5389 cannot be combined for units.

DTI 5501 Fondements de gestion pour les affaires électroniques (3 crédits)

Volet : Cours magistral

DTI 5502 Fondements des technologies de l'information pour les affaires électroniques (3 crédits)

Volet : Cours magistral

DTI 5503 Fondements des statistiques pour les affaires électroniques (3 crédits)

Volet : Cours magistral

http://catalogue.uottawa.ca/fr/cours/dti/index.html
DTI 5902 Projet de stage en entreprise / Industry Internship Project (6 crédits / 6 units)
Projet encadré par un expert de l’industrie et un professeur qui supervise le projet. Les projets internationaux (emplacement ou expert du secteur) sont autorisés. / Project mentored by an industry expert and a professor who co-supervise the project. International projects (location or industry expert) are permitted. 
Volet / Course Component: Recherche / Research Préalable : GNG 5301. Les cours DTI 5902, GNG 5902 ne peuvent être combinés pour l’obtention de crédits. / Prerequisite: GNG 5301. Courses DTI 5902, GNG 5902 cannot be combined for units.

DTI 5900 Études dirigées / Directed Readings I (1.5 crédit / 1.5 unit)
Volet / Course Component: Recherche / Research

DTI 5901 Études dirigées / Directed Readings II (1.5 crédit / 1.5 unit)
Volet / Course Component: Recherche / Research

DTI 6230 Business Process Management and Performance Measurement (3 units)
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. Introduction to current performance measurement tools and the role of data science in business process management. Example applications such as supply chain management, order processing, and health care process management will be studied.
Course Component: Laboratory, Lecture

DTI 6240 Mobile Commerce (1.5 unit)
Course Component: Lecture

http://catalogue.uottawa.ca/fr/cours/dti/index.html
DTI 6250 Document Engineering for Digital Transf. and Innovation (1.5 unit)
Course Component: Lecture

DTI 6260 Integrated Networks for the Enterprise (1.5 unit)
Course Component: Lecture

DTI 6300 Topics in Digital Transformation and Innovation (3 units)
Recent and advanced topics in the field of Digital Transformation and Innovation and its related areas. Topics vary from year to year.
Course Component: Lecture

DTI 6301 Topics in Digital Transformation and Innovation (1.5 unit)
Recent and advanced topics in the field of Digital Transformation and Innovation and its related areas. Topics vary from year to year.
Course Component: Lecture

DTI 6302 Topics in Applied Data Science (3 units)
Recent and advanced topics in the field of Applied Data Science and its related areas. Topics vary from year to year.
Course Component: Lecture

DTI 6303 Topics in Applied Data Science (1.5 unit)
Recent and advanced topics in the field of Applied Data Science and its related areas. Topics vary from year to year.
Course Component: Lecture

DTI 6304 Topics in User Experience Design (3 units)
Recent and advanced topics in the field of User Experience Design and its related areas. Topics vary from year to year.
Course Component: Lecture

DTI 6305 Topics in User Experience Design (1.5 unit)
Recent and advanced topics in the field of User Experience Design and its related areas. Topics vary from year to year.
Course Component: Lecture

DTI 6402 Affective and Persuasive Computing (3 units)
Course Component: Lecture

DTI 6700 Thèmes choisis en affaires électroniques (3 crédits)
Sujets actuels et avancés en affaires électroniques et disciplines connexes. Les sujets varient d’une année à l’autre.
Volet : Cours magistral

DTI 6701 Thèmes choisis en affaires électroniques (3 crédits)
Sujets actuels et avancés en affaires électroniques et disciplines connexes. Les sujets varient d’une année à l’autre.
Volet : Cours magistral

DTI 6900 Stage international / International Work Term (3 crédits / 3 units)
Expérience pratique dans un milieu de travail international. Noté S (satisfaisant) / NS (non satisfaisant) selon les résultats de rapport écrit et l'évaluation de l'employeur. / Practical international experience.
Volet / Course Component: Cours magistral / Lecture

DTI 6950 Lectures dirigées / Directed Readings (1.5 crédit / 1.5 unit)
Volet / Course Component: Cours magistral / Lecture

DTI 6997 Projet de recherche / Research project (6 crédits / 6 units)
Le sujet de recherche, ainsi que le professeur qui va le diriger, doivent être approuvés par la direction du programme avant l’inscription à la troisième session. Le sujet peut être de nature théorique (par exemple, une évaluation de la documentation ou une étude de la littérature scientifique) ou appliquée (par exemple, des études de cas). Un mémoire, d’une cinquantaine de pages, doit être rédigé et approuvé par le professeur qui le dirige ainsi qu’un autre professeur. / The research topic and the professor who will direct it must be approved by the program director prior to registration in the third session. The topic can be theoretical (for instance, based on a documentation assessment or a review of the scientific literature) or applied (based on case studies). A research paper, about 50 pages long, must be written and approved by the project director and another professor.
Volet / Course Component: Recherche / Research

DTI 7100 Research Methods in Digital Transf. and Innovation (3 units)
Course Component: Lecture

DTI 7101 Research Workshop in Digital Transf. and Innovation (1.5 unit)
Writing a Research Project proposal including problem formulation and work plan. Essentials of graduate report writing, information management, literature search techniques and reference management. Research ethics including academic integrity and avoiding academic fraud.
Course Component: Lecture

DTI 7102 Interdisciplinary Research Methods in Digital Transf. and Innovation (1.5 unit)
Writing a Thesis Proposal. Research design. Introduction to positivist and interpretive approaches, behavioral and design science research, qualitative and quantitative research methods, and sampling strategies and techniques.
Course Component: Lecture

DTI 7103 Visual Literacy and User Experience Design Principles (3 units)
Fundamentals of visual, interaction and motion design theories and principles as they relate to User Experience Design (UXD). A series of hands-on workshops and assignments focus on building visual literacy through guided observations, visual design critiques, and visual redesigns of existing screen-based digital products (i.e. website, interactive kiosk interface, mobile app etc.). Students will complete a design project. Students will conduct research and scholarship in visual literacy, and UXD and justify their design decisions in writing.
Course Component: Lecture

DTI 7990 Proposition de thèse / Thesis Proposal
Volet / Course Component: Recherche / Research

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Vous consultez la version 2023-2024 du catalogue.

**DTI 8101 Interdisciplinary Doctoral Seminar in Digital Transformation and Innovation I (3 units)**
Recent developments in Digital Transformation and Innovation 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 DTI 8102. Course reserved for students in the Digital Transformation and Innovation PhD program.

*Course Component:* Seminar

**DTI 8102 Interdisciplinary Doctoral Seminar in Digital Transformation and Innovation II (3 units)**
Recent developments in Digital Transformation and Innovation 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 DTI 8101. Course reserved for students in the Digital Transformation and Innovation PhD program.

*Course Component:* Seminar

**DTI 9997 Projet de thèse doctoral / Doctorate Thesis Proposal**
*Volet / Course Component:* Recherche / Research

**DTI 9998 Examen général de doctorat / Comprehensive Exam**
*Volet / Course Component:* Recherche / Research

http://catalogue.uottawa.ca/fr/cours/dti/index.html