INTRODUCTION TO BIG DATA
NON-CREDIT PROGRAM WITH TRANSCRIPT

DESCRIPTION
Leverage your strengths in quantitative analysis to extrapolate meaningful business insights from large data sets. This program will introduce you to a practical toolkit to help you work with data at scale.

DATES
July 29 – August 16, 2019 (3 weeks)

COURSES
1. DATA SCIENCE FOR BUSINESS DECISIONS (30 HOURS)
This course aims to provide an overview of how data science can help drive business decisions and create new business models. The emphasis is placed on how to move from data to insight. The course explores the data science process and various challenges that data driven businesses face including ethics, data governance and privacy among others. The evolution of data technology and storage, as well as application of data science tools and techniques in different business areas such as customer and web analytics, operations analytics, human resources related analytics are explored through examples from various industries such as banking, healthcare, marketing, agriculture to name a few.

2. DATA AT SCALE (35 HOURS)
This course familiarizes participants with different aspects of large data sets and how they are managed both on site and in the Cloud. Emphasis is placed on providing participants with hands-on experience from data ingestion to analysis of large data sets, both data-at-rest or data-in-motion (streaming data), including defining Big Data and its 5 V’s: Volume, Velocity, Variety, Veracity, and Value. Architectures of distributed databases and storage, ecosystems such as Hadoop and Spark are covered followed by introduction to Scala, Spark-Shell and PySpark.

These courses are non-credit. A McGill Record of Study will be issued for these courses. The language of instruction is English (TOEFL 550+ - paper-based or equivalent). Courses can be taken individually.

PRE-REQUISITES
→ Strong quantitative background
→ Solid understanding of statistical concepts:
→ Applicants must be currently enrolled in one of the following programs or hold a degree in:
  → Bachelor of Engineering (B.Eng.)
  → Bachelor of Science (B.Sc.)
  → Bachelor of Commerce in MIS (B.Com MIS)
Students without prior knowledge of Python must complete the following Python courses online and provide proof of completion prior to the start of the program:
Introduction to Python for Data Science course.

FEES
→ Tuition Fees: $2355 CAD
→ Ancillary Fees: $320 CAD
→ Total Program Fees: $2675 CAD (≈ $2025 USD*)
→ Fees include:
  → International Health Insurance (for non-Canadian residents)
  → Course material
  → McGill Record of Study
→ Attestation of Completion of Program
→ Orientation session
→ Welcome and Farewell receptions
→ Optional:
  → Accommodation (Double Occupancy): $825 CAD ($625 USD*)
  → Cultural and social activities (Fees to be announced)
→ Not included:
  → Meals

*Invoicing is in Canadian dollars, USD pricing based on the Jan. 10, 2019 rate is for comparative purposes only and is subject to change.