Analytics Emphasis Requirements Prior to June 2019

Note: only students who began their MEng studies prior to June 2019 can qualify for the Emphasis in Analytics using the requirements below. Students who start their studies September 2019 and after must meet the most recent Emphasis in Analytics requirements listed on https://gradstudies.engineering.utoronto.ca/professional-degrees/emphasis-in-analytics/

Master of Engineering (MEng) students in graduate units in the departments of Chemical Engineering & Applied Chemistry, Civil Engineering, Electrical & Computer Engineering, and Mechanical & Industrial Engineering can earn an Emphasis in Analytics by successfully completing four courses from the two lists presented below. At least one (1) course must be from the list of core courses. The other courses must be selected from the list of elective courses.

Core Courses

MIE 1624H: Introduction to Data Science and Analytics

ECE1513H: Introduction to Machine Learning (exclusion: ECE1504)

Elective Courses

APS 502H: Financial Engineering

APS 1005H: Operations Research for Engineering Management

APS 1017H: Supply Chain Management and Logistics

APS 1022H: Financial Engineering II

APS 1040H: Quality Control for Engineering Management

APS 1050H: Blockchain Technologies

APS 1051H: Investment Portfolio Management

APS 1052H: A.I. in Finance

CHE 507H: Data-based Modelling for Prediction and Control

CHE1147H: Data Mining in Engineering

CHE 1148H: Process Data Analytics

CHE 1434H: Six Sigma for Chemical Processes

CIV 1504H: Applied Probability and Statistics for Civil Engineering

CIV 1506H: Freight Transportation and ITS Applications

CIV 1507H: Public Transport

CIV 1532H: Fundamentals of ITS and Traffic Management

CIV 1538H: Transportation Demand Analysis

CEM 1002H: Empirical Study of Cities

ECE 537H: Random Processes

ECE1504H: Statistical Learning (new course offered in the 2018-2019 academic year; exclusion: ECE1513)

ECE 1505H: Convex Optimization

ECE 1510H: Advanced Inference Algorithms

ECE 1657H: Game Theory and Evolutionary Games

ECE 1778H: Creative Applications for Mobile Devices

ECE 1779H: Introduction to Cloud Computing

MIE 562H: Scheduling

MIE 1413H: Statistical Models in Empirical Research

MIE 1501H: Knowledge Modelling and Management

MIE 1512H: Data Analytics

MIE 1513H: Decision Support Systems

MIE 1620H: Linear Programming and Network Flows

MIE 1621H: NonLinear Optimization

MIE 1622H: Computational Finance and Risk Management

MIE 1623H: Introduction to Healthcare Engineering

MIE1628H: Big Data Science

MIE 1653H: Integer Programming Applications

MIE 1721H: Reliability

MIE 1723H: Engineering Asset Management

MIE 1727H: Statistical Methods of Quality Assurance