Data Science (DATA)

Data Science (DATA) Courses

**DATA 5000** [0.5 credit]

Data Science Seminar

Cloud based distributed systems, statistics, machine learning, use of complex ecosystems of tools and platforms, data ethics, and communication skills to explain advanced analytics. Students choose a project in Big Data management and/or analysis, deliver a paper and give a class presentation on their findings.

**DATA 5001** [0.5 credit]

Fundamentals in Data Science and Analytics

Ethics in Data Science and Analytics, visualization and knowledge discovery in massive datasets; unsupervised learning: clustering algorithms; dimension reduction; supervised learning: pattern recognition, smoothing techniques, classification.

Precludes additional credit for STAT 5703.

**DATA 5002** [0.5 credit]

Data Science, Ethics & Society

The ethical, social, political, and environmental implications of data science including the roles and responsibilities of data scientists in contemporary and emerging technological systems and the impact these systems may have at multiple scales, individual, group, institution, across sectors and nation-states.

Includes: Experiential Learning Activity

Also listed as COMS 5225.

Precludes additional credit for COMS 5225, ITEC 5206.

**DATA 5900** [0.5 credit]

Special Topics in Data Science

Special topics, not covered by other graduate courses. Details will be available at the time of registration.

**DATA 5908** [1.5 credit]

Project - MSc

**DATA 5909** [2.5 credits]

Thesis - MSc

**DATA 5918** [1.5 credit]

Project - MIT

**DATA 5919** [2.5 credits]

Thesis - MIT

**DATA 5928** [1.0 credit]

Project - MEng

**DATA 5929** [2.5 credits]

Thesis - MASc

**DATA 5939** [2.5 credits]

Thesis - MCS

**DATA 6909** [0.0 credit]

Thesis - PhD