DATA5000: Introduction to Data Science  
Winter 2020  
School of Computer Science  
Carleton University

Description

The course covers topics relevant to data science: working with data, exploratory data analysis, data mining, machine learning. The concepts are illustrated using the R language. Students also receive hands-on tutorials to IBM Cognos Analytics, Tableau, etc. Students will be evaluated by their course projects. The course will be lecture-based and will also offer some hands-on tutorials. The project component will be flexible and will involve data collection, manipulation, and analysis.

Class Schedule

Lectures are held every Tuesday from 11:35 AM to 2:25 PM in SA 518 (Olga’s class), SA 501 (Elio’s class), and SA 318 (Majid’s class).  
Reading week: February 17-21, 2020 (no classes).

Course Website

http://olgabaysal.com/teaching/winter20/data5000_w20.html

Instructors

Olga Baysal  
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Majid Komeli  
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Course Schedule

• Tuesday January 7, 2020 - Lecture 1: What is Data Science?/ Introduction to R (in SA 518).
• Tuesday January 14, 2020 - Lecture 2: Working with Data (in SA 518).
• Tuesday January 21, 2020 - Lecture 3: Visualization and Exploration.
• Tuesday January 28, 2020 - Lecture 4: Data Mining and Machine Learning I.
• Tuesday February 4, 2020 - Lecture 5: Machine Learning II.
• Tuesday February 11, 2020 - IBM Cognos Analytics Tutorial.
• Tuesday February 18, 2020 - NO CLASS (Winter Break)
• Tuesday February 25, 2020 - Guest lecture (in SA 518).
• Tuesday March 3, 2020 - Tableau Tutorial (in SA 518).
• Tuesday March 10, 2020 - IBM Cognos Analytics Tutorial (in SA 518).
• Tuesday March 17, 2020 - Guest Lecture (in SA 158).
• Tuesday March 24, 2020 - Poster Presentations (in SA 158).
• Tuesday March 31, 2020 - Data Day 7.0 (at Atrium Richcraft Hall).
• Tuesday April 7, 2020 - Project Presentations.

Evaluation

• Paper presentation: 10% (paper selection due January 21 )
• Project proposal: 10% (due January 21, 11:59 PM)
• Presentation outline: 5% (due March 10, 11:59 PM)
• Poster presentation: 10% (March 24)
• Project presentation: 15% (April 7)
• Project report: 50% (due April 14, 11:59 PM)

University Policies

Student Academic Integrity Policy

Academic Integrity is everyone’s business because academic dishonesty affects the quality of every Carleton degree. Each year students are caught in violation of academic integrity and found guilty of plagiarism and cheating. In many instances they could have avoided failing an assignment or a course simply by learning the proper rules of citation. See the Academic Integrity for more information.

Academic Accommodations for Students with Disabilities

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

Pregnancy obligation

Write to the instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website.
Religious Obligation

Write to the instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website.