EXPANDED COURSE DESCRIPTION

ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
Lassonde School of Engineering
Electrical Engineering Computer Science

LE / EECS 4412 3.0 SECTION A
DATA MINING
FALL 2017 / WINTER 2018

Last Modified Date: 08/18/2017

COURSE CALENDAR DESCRIPTION

This course introduces and presents basic concepts of data mining, data mining techniques, models and applications. Topics include association rule mining, classification models, sequential pattern mining and clustering. One hour weekly laboratory. Prerequisites: General Prerequisite; LE/EECS 2030 3.00 or LE/EECS 1030 3.00, LE/EECS 3101 3.00, LE/EECS 3421 3.00 and one of SC/MATH 2030 3.00 or SC/MATH 2930 3.00 or SC/MATH 1131 3.00. Course credit exclusions: LE/CSE 4412 3.00, AK/AS/SC/CSE 4412 3.00. (NOTE: The General Prerequisite is a cumulative GPA of 4.50 or better over all major EECS courses. EECS courses with the second digit "5" are not major courses.)

INSTRUCTOR(S)

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TOPICS AND CONCEPTS

DESCRIPTION

Data mining or knowledge discovery from databases (KDD) is one of the most active areas of research in databases. It is at the intersection of database systems, statistics, AI/machine learning, and data visualization. In this course, we will introduce the concepts of data mining and present data mining algorithms and applications. Topics include association rule mining, sequential pattern mining, classification models, clustering, and text mining.

GRADED ASSESSMENT

GRADING SCHEME

Assignments 25%
Midterm 20%
Project 20%
Final Exam 20%

ADDITIONAL INFORMATION

MATERIALS

Textbook
- Jiawei Han, Micheline Kamber and Jian Pei, Data Mining
Reference Books and Materials
- Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Introduction to Data Mining, Addison Wesley, 2006.
- Some conference/journal papers
- More books can be found here

USEFUL ON-LINE INFORMATION
- Weka
- KDnuggets
- UCI Machine Learning Repository
- KDD Cup Datasets
- Data Mining Software
- Open Source Software and Data Sets

ACADEMIC INTEGRITY LINKS
- Senate Policy on Academic Honesty - http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/
- Academic Integrity - http://lassonde.yorku.ca/academic-integrity

STUDENT LINKS
- Student Rights and Responsibilities - http://oscr.students.uit.yorku.ca/student-conduct
- Religious Observance - https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs
- Counselling and Disability Services - http://cds.info.yorku.ca/

Many courses utilize Moodle, York University’s course website system. If your course is using Moodle, click here to access it.
Moodle @ York University