

MET CS 699 -- Data Mining and Business Intelligence

Instructor

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Course Web Site

<http://vista.bu.edu>

Course Description

Data mining and investigation is a key goal behind any data warehouse effort. The course provides an introduction to concepts behind data mining, text mining, and web mining. The course surveys various data mining applications, methodologies, techniques, and models. Topics include classification, decision trees, association rules, and clustering. The course wraps up with data mining case studies using large data sets taken from real-world projects. Algorithms will be tested on data sets using the Weka Data mining software and Microsoft SQL Server 2008 R2 (Business Intelligence Development Studio). The course grading will consist of analyzing a series of data mining problems, in-class mid term exam, and a final project.

Course Grading Policy

The course grade will be based on active class participation and quizzes(10%), assignments (30%), mid term exam (30%), and final project(30%). Assignments are expected to be submitted by their respective due dates. Late submission grades will be scaled with respect to the minimum grade of those submitted on time.

References

- *Data Mining: Concepts and Techniques*, Third Edition, J. Han and M. Kamber, Publisher: Morgan Kaufmann, 2012. ISBN: 978-0-12-381479-1
- Various online materials

Student Conduct Code

[Please review the academic conduct code](#)

Tentative Course Schedule

- **Module 1**
 - Overview of Data Mining, Data Warehousing, and Business Intelligence.

- Getting Started with SQL Server and WEKA Tools
- **Module 2**
 - Data Preparation
 - Data Warehouse and OLAP techniques
- **Module 3**
 - Data Mining -- Classification
- **Module 4**
 - Data Mining -- Association Analysis
 - Data Mining -- Clustering
- **Mid Term Exam (Open Textbook only)**
- **Module 5**
 - Text Mining and Web Mining
- **Module 6**
 - Real time Business Intelligence
 - Case Study
- **Final Project Presentation**