CS-504 Principles of Data Management and Mining

Spring 2018 Section 002/P01

Instructor Information

Instructor	Email	Office Location & Hours
Adjunct Professor: James Baldo Jr.	jbaldo@gmu.edu	Available by appointment

Course Assistant Information

Course Assistant	Email	Office Location & Hours
Kaushik Kandlakunta	kkandlak@masonlive.gmu.edu	Available by appointment

Course Overview

Techniques to store, manage, and use data including databases, relational model, schemas, queries and transactions. On Line Transaction Processing, Data Warehousing, star schema, On Line Analytical Processing. MOLAP, HOLAP, and hybrid systems. Overview of data Mining Principles, models, supervised and unsupervised learning, pattern finding. Massively parallel architectures and Hadoop.
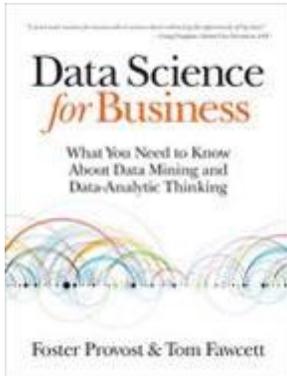
Scheduled Meeting Times

Section 002/P01: Wednesday 7:20 pm – 10:00 pm; Innovation Hall 134

Course Materials

Required Materials

Students will have accounts on Blackboard and will be able to download lecture slide files, take quizzes, submit assignments, collaborate, and access additional course content.
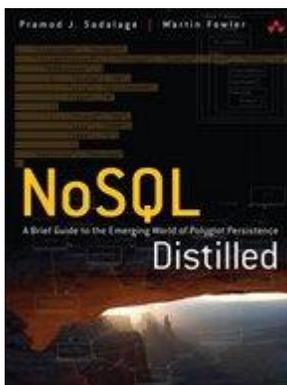
Textbooks

Data Science for Business

by: Foster provost; Tom Fawcett

Required.

NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence

by: Pramod J. Sadalage; Martin Fowler

Required.

Course Lab Environments

Oracle Big Data Lite VM
Cloudera QuickStart VM
Hortonworks Data Platform VM
Hortonworks DataFlow VM
RapidMiner

Attendance

Attendance is mandatory. Class is scheduled during the semester every Tuesday during the **Spring** 2018 Semester (except for Spring Break) from 7:20 PM to 10:00 PM. Attendance is monitored.

Course Requirements and Grading

The course grade is based on assignments, quizzes, one project and one 3 hour comprehensive final examination. All required coursework must be completed by the stated due dates and times. Late assignments will not be accepted, no make-up for missed quizzes, and no make-up test will be given for the final examination.

- Homework: 20%
- Quizzes: 20%
- Project: 20%
- Final Exam: 40%

All required coursework for this class is to be performed independently. Please read the information about GMU and CS Department Academic Integrity and Honor Code Policies at

http://cs.gmu.edu/wiki/pmwiki.php/HonorCode/HomePage.

These policies will be strictly enforced.

If you have a documented learning disability or other condition that may affect academic performance you should:

 1) Make sure this documentation is on file with the Office of Disability Services (SUB I, Rm. 4205; 993-2474; http://ods.gmu.edu/) to determine the accommodations you need; and

2) Talk with me to discuss your accommodation needs no later than the first lecture.

Course Dates

Start: Wednesday 24 January 2018

End: Wednesday 9 May 2018

Tentative List of Topics:

All lecture slides are available for download on the Blackboard CS 504 Course Page.

All assignments descriptions (including project) will be made available on the Blackboard CS 504 Course Page.

All assignments are submitted on via the Blackboard CS 504 Course Page.

All quizzes are available and taken on the Blackboard CS 504 Course Page.