

CS 504 Spring 2017

Instructor: Kevin Molloy
Time and Location: Monday 4:30 to 7:10 pm in Innovation Hall Room 206
Office Hours: Monday 3:15 to 4:15 and by request

Description

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.

Disability Statement

If a disability or other condition affects your academic performance, you need to document it with the [Office of Disability Services](#).

Honor Code

Please be familiar with the [GMU Honor Code](#). In addition, the CS department has its own [Honor Code policies](#). Any deviation from this is considered an honor code violation.

Required Textbooks

- NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence by Sadalge and Fowler (available free via [Safari](#)) or Amazon for \$35
- [Introducing Data Science: Big data, machine learning, and more, using Python tools by Davy Cielen, Arno D.B. Meysman, Mohamed Ali](#)
- Hadoop: The Definitive Guide, 4th edition (available free via [Safari](#)) or Amazon for \$36

Optional Textbooks

This textbook will not be directly used in the class, however, if you intend on applying data science to business, it is a good read. We will be covering some of this material in class through other text. The data modeling book is recommended for those that might continue to build/design data marts.

- First Course in Database Systems: by Ullman and Widom
- Data Science for Business: What you need to know about data mining and data-analytic thinking [Paperback] by Foster Provost , Tom Fawcett

Grading

Homeworks	20%
Midterm Exam	35%
In Class Quizzes	10%
Class Participation	5%
Final Project	30%

Lowest homework grade will be dropped. All other homework will be accepted one day late with a 30% penalty (after one day, the assignment will NOT be accepted).