
GEORGE MASON UNIVERSITY
Department of Computational and Data Sciences
CDS 303: Scientific Data Mining · Spring 2021

SYLLABUS

Instructor: Dr. Alex Kisselev
Email: akissele@gmu.edu
Office Hours: by appointment

Time and Room:

Lectures: Monday 10:30am-11:45am on Zoom

Q&A Sessions: Monday 11:45am-1:10pm on Zoom

Zoom links, course materials, assignments and announcements are available on class Blackboard.

Recommended Prerequisite: CDS 101 or CDS 130.

Textbook:

Main book we will follow is

• *Introduction to Data Mining*, 2nd Ed, by Tan, Steinbach, Karpatne and Kumar, Pearson, 2019.

The supplementary reading material suggested for this class:

• *Data Science for Business: What you need to know about data mining and data-analytic thinking*, by Provost and Fawcett, O'Reilly, 2013.

Course Description:

This course provides both theoretical and practical coverage of key data mining topics. Topics covered include classification, association analysis, clustering, anomaly detection, and avoiding false discoveries.

The level of presentation assumes only a modest statistics or mathematics background, and no database knowledge is needed.

This course will be using Python as a programming language. Prior knowledge of Python is not required.

Grading policy:

Your grade in this course will depend on your performance on graded projects and class participation.

Tentative weight of assessment components:

- Projects and graded homework assignments: 90%

- Participation: 10%

Occasional practice problems will be given that will not count towards the final grade, unless specifically noted. I strongly encourage all participants to do these exercises in order to gain the necessary grasp of the material and perform well on exams and graded assignments.

Academic Policies

All GMU policies regarding ethics and honorable behavior apply to this course. If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703/993-2474. All academic accommodations must be arranged through that office.