

STAT 1261(1020)/2260(1010)

Principles of Data Science

- Instructor: Junshu Bao
 - Email: jub69@pitt.edu
 - Office Hours (Zoom): Thursday 5-6 PM or by appointment
 - Office Hours Zoom URL: <https://pitt.zoom.us/j/7550746319>
- TA: Carl Jacobsen
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 - Office Hours (in-person): Monday 3-4 PM
 - Office: 1825 Wesley W. Posvar Hall
- Lectures
 - Time: Monday/Wednesday 10:00 - 10:50 AM
 - Location: 1501 Wesley W. Posvar Hall
- Recitations (231 Lawrence Hall)
 - 1021 Friday 12:00 - 12:50 PM
 - 1022 Friday 11:00 - 11:50 AM

Course Description and Learning Objectives

This course is a gentle introduction to Data Science. The following will be discussed:

1. Introduction to R and RStudio
2. Data Visualization
3. Data Management
4. Unsupervised learning
5. Supervised learning and Model Assessment
6. Professional Reporting and Reproducible Analysis

Course Logistics

Prerequisites Statistics knowledge at the level of STAT 1000 or above. No prior knowledge of programming required.

Textbooks

- Modern Data Science with R Free e-book of the 2nd Edition: <https://mdsr-book.github.io/mdsr2e/>
- R for Data Science Free e-book of the 2nd Edition: <https://r4ds.hadley.nz/>

Course Management System: Canvas

- Lecture slides
- Reading material
- Homework, labs, quizzes, exams etc.
- Data sets

Grading Components

1. Homework Assignments (40%)

- Homework and/or lab activities will be assigned weekly.
- Homework questions require coding in R.
- Homework submitted within 24 hours of the deadline can be accepted with a 20% penalty. After 24 hours, homework won't be accepted.

2. Quizzes (20%)

- Four quizzes throughout the semester
- Check class schedule for dates and topics

3. Exams (40%)

- Exam 1 (15%) Data Visualization and Management
- Exam 2 (25%) Machine Learning

Both exams will be in-class and timed.

Course Grades:

Grade	Percentage
A+	[99%,100%]
A	[93%,99%)
A-	[90%,93%)
B+	[87%,90%)
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University Policies:

Academic Integrity Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

To learn more about Academic Integrity, visit the Academic Integrity Guide for an overview of the topic. For hands-on practice, complete the Understanding and Avoiding Plagiarism tutorial.

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I ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed online: <https://www.diversity.pitt.edu/make-report/report-form>. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

Disability Services If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648- 7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

Accessibility The Canvas LMS platform was built using the most modern HTML and CSS technologies, and is committed to W3C's Web Accessibility Initiative and Section 508 guidelines. Specific details regarding individual feature compliance are documented and updated regularly.