

DS 2001 SECTION 1, FALL 2024 SYLLABUS

Course Title: Data Science Programming (Science) Practicum

Time/Location: Mondays, 8:00 – 9:40am, West Village H 210A

Instructor: Vance Blankers, v.blankers@northeastern.edu

Content: This practicum aims to give hands-on practice relating to the content and skills taught in DS 2000. It is specifically “science focused”; since “science” is quite broad, our practicum topics will be as well! In particular, we will work on topics in mathematics, probability, voting theory, astronomy, ecology, network science, Fourier analysis, and meteorology. If you have a specific subject area you would like to see included, please let me know as soon as possible and I’ll see what I can make happen.

Grading: Your grade for DS 2001 (note: you will receive a separate grade for DS 2000, the lecture component) will be calculated as follows:

- Weekly submissions (80%)
- Final project (20%)

For the weekly submissions, we will follow **the same rubric** as DS 2000. Final letter grades will be given according to a 10-percentage-point scale: A for $\geq 90\%$, B for $\geq 80\%$, etc., with the top 3 points in each band also getting a +. For example, any final score between 87.0% and 89.9% will end with a B+. **There will be no minuses.**

Weekly Submissions: Our class will meet weekly, at the time and location above. More details:

- There will be a different practicum each week, and you will have the entire session to work on that week’s assignment. During the session, TAs and I will float around the room offering guidance and answering questions.
- Practicums (or “Practica”) will be posted to our **Canvas page** shortly before class.
- Each practicum is intended to be submitted by the end of the session; however, you will have until 5pm the following day to finish things up and submit if you’d prefer.
- You will submit your DS 2001 assignments via **Gradescope** (Entry Code: **3RZD63**).

Final Project: There will be a final project near the end of the semester that will demonstrate your ability to find, clean, import, analyze, visualize, and present on a dataset of your choosing. You will be able to work alone or in small groups (2–4 members). More information regarding the details of the project will be forthcoming.

Academic Integrity: We follow the academic integrity policies laid out in **DS 2000**. In particular, while you are encouraged to work together, you should not copy anyone else’s code (where “anyone else” includes classmates, ChatGPT, the internet in general, and so forth).

DRC: Have a Disability Resources Center (DRC) situation? No problem; just let me know as soon as possible.

Software: We’ll be using Python 3. **PyCharm Community Edition** will be the official DS 2001 editor used to write and run Python code; if you’d like to use another editor, that’s totally fine, but we will be best able to help you out if you’re using PyCharm.

Leftovers: Extra stuff that didn’t fit any of the categories above:

- As the instructor, I reserve the right to alter this syllabus at any time. I’ll announce any such changes in as timely a manner as possible.
- Every student is expected to complete the online TRACE survey at the end of the semester.
- If you have any issues at all, please do not hesitate to contact me. Pretty much every problem can be resolved via communication. If you do not feel comfortable talking to me directly, you can instead reach out to any of the TAs or instructors for DS 2000 or DS 2001.