

## Instructor

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## Class Information

Days: Tuesday/Thursday  
Location: Maxwell 402

Time: 11:00 - 12:20

## Course Description

Data and data analysis are increasingly important for political science research, but also in the public discourse and the workplace. In this class, you will learn how to conduct data analysis yourself. We'll cover topics such as finding data, data cleaning and data manipulation, data visualization, and data analysis. Along the way, we'll learn basic statistical functions and plots in the powerful (and free) statistical program R. Throughout, the class takes an applied approach, so students will develop their own research project and conduct their own data analyses.

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## MAIN THINGS TO KNOW

### Course Website

<http://www.simonweschle.com/psc400>

The website has the continuously updated class schedule, including all readings and assignments. Please check the page EVERY WEEK.

### Student Hours

Day: Tuesday

Time: 1:00 - 3:00

Location: Eggers 332 or Zoom (Meeting ID 967 4250 4513, Password 884019)

During this time, you can drop by with questions, comments, etc. without an appointment. If you can't meet during that time, email me and we'll set something up.

### Textbook

Elena Llaudet and Kosuke Imai, 2022: *Data Analysis for Social Science: A Friendly and Practical Introduction*. Princeton University Press.

### Assignments and Grading

- *Class Participation (15%)*: Attendance, class preparation and participation: come prepared by working through assigned reading before class, participate and ask questions.
- *Class Programming Review Exercises (10%)*: Weekly review exercises, each graded P/F.
- *Problem Sets (30%)*: Approximately every two weeks.
- *Data Analysis Memos (15%)*: Approximately every two weeks.
- *Data Analysis Paper (30%)*: Final paper due May 6.

**MORE DETAIL ON IMPORTANT THINGS****Assignments and Grading**

Your grade in this class will be based on class participation, three in-class exams, problem sets, and your grade from the discussion section.

- *Class Participation (15%)*: To succeed in this course, you have to attend class on a regular basis, come prepared by having worked through the assigned reading **before** class (where working through means reading and running the code), and actively participate and ask questions.
- *Class Programming Review Exercises (10%)*: There will be short weekly review exercises that cover the basic R material we learned. Each exercise is graded as pass/fail, where a pass is worth 1 point and a fail worth 0.
- *Problem Sets (30%)*: There will be 5 to 6 problem sets (approximately every 2 weeks, alternating with data analysis memos) in which you are asked to use what you have learned in class to analyze different kinds of data. The answers to these problem sets should be typed. They are graded on a scale from 1 to 5, and late submissions will be penalized by 1 point for every 24 hours past the due date. Any extension requests must be made to me personally and as soon as possible.
- *Data Analysis Memos (15%)*: Your main task in this class will be to write a paper with your own data analysis on a question that is of interest to you. To help you along the way, you will submit reports about the individual steps throughout the semester (approximately every 2 weeks, alternating with problem sets). The memos will cover: your research question and potential confounders, your data, data cleaning, descriptive statistics, bivariate relations, (first) regression results. The memos should be short (2-3 pages) and typed in their entirety. They are graded on a scale from 1 to 5, and late submissions will be penalized by 1 point for every 24 hours past the due date. Any extension requests must be made to me personally and as soon as possible. I will provide feedback to every memo to help you improve your final paper.
- *Data Analysis Paper (30%)*: Your final paper should set out your research question, explain the data and statistical methods you use to investigate it, and describe what, based on your data analysis, the answer is. There is no minimum or maximum paper length. It should be as long as needed, but as short as possible. The papers are due on May 6.

For your final grade, I use the following scale as a guide: A (93-100), A-(90-92), B+ (87-89), B (83-86), B-(80-82), C+ (77-79), C (73-76), C-(70-72), D (60-69), and F (0-59). However, the final determination about grades is with me and may deviate from this scale. I will post grades to Blackboard. You are expected to keep track of your own grade using the raw scores from Blackboard and the weights above.

**Talk to Me!**

If you feel, at any point, depressed, panicked, or anything the like, please come talk to me. You don't have to reveal any details that you don't want to, and I will not judge you in any way. There's always something that can be done to help you and to make sure you are in a position to complete the course. The same goes if you are in danger of failing the class. I'm happy to help, but I cannot read your mind

or otherwise intuit what is going on in your life. So, come talk to me as early as possible. It's much more difficult to do something after the fact.

**Student Hours**

Student hours are the designated time that I set aside each week specifically for meeting with students. If you want to come during that time, you do not need to let me know in advance or ask permission, I will always be there. These hours are your chance to talk to me about course material, college in general, or just to chat so we can get to know each other. I am also happy to meet with you outside of the designated time, but for that you need to schedule an appointment in advance. Student hours are held simultaneously in-person and on Zoom, and you can choose whichever modality you prefer. If you cannot meet during designated time, please let me know and we'll set up another time.

As mentioned in the previous section, it is easiest for everyone if you talk to me as early as possible about any issues or questions. Instead of waiting until you get a bad grade in an exam and asking how you can "make up" for it, come talk to me before the exam and ask questions about the material. That way, we can walk through the material together and I can explain a course concept in a different way. Similarly, rather than waiting until the end of the semester to tell me about issues that prevented you from focusing on school, talk to me earlier when there is still time for me to accommodate your circumstances. You get the point—if you find yourself asking whether you should come talk to me about something, come talk to me.

**Textbook**

Elena Llaudet and Kosuke Imai, 2022: *Data Analysis for Social Science: A Friendly and Practical Introduction*. Princeton University Press

We will use this book throughout the course and working through it will be essential to your success in this class. You can acquire the book in print or as an ebook through Amazon, Princeton University Press, or any other retailer.

**Tentative Course Outline**

The course outline below is preliminary and subject to change. The exact week-to-week schedule will be developed and updated throughout the semester to reflect student interest and the pace at which we are progressing. It will be posted on the Course Website <http://www.simonweschle.com/psc400>, which you should check at least once a week.

- Week 1 (Jan 16 & 18): Getting Started with R
- Week 2 (Jan 23 & 25): Causality with Randomized Experiments
- Week 3 (Jan 30 & Feb 1): Causality with Randomized Experiments
- Week 4 (Feb 6 & 8): Finding and Cleaning Data
- Week 5 (Feb 13 & 15): Inferring Population Characteristics, Bivariate Relations
- Week 6 (Feb 20 & 22): Inferring Population Characteristics, Bivariate Relations

- Week 7 (Feb 27 & 29): Predicting Outcomes, Linear Regression
  - Week 8 (Mar 5 & 7): Causality with Observational Data, Linear Regression
  - Spring Break, no class Mar 12 & 14
  - Week 9 (Mar 19 & 21): Causality with Observational Data, Extensions to Linear Regression
  - Week 10 (Mar 26 & 28): Topic Choice: Prediction, Spatial Data, Network Data, Text as Data, Webscraping
  - Week 11 (Apr 2 & 4): Topic Choice: Prediction, Spatial Data, Network Data, Text as Data, Webscraping
  - Week 12 (Apr 9 & 11): Topic Choice: Prediction, Spatial Data, Network Data, Text as Data, Webscraping
  - Week 13 (Apr 16 & 18): Topic Choice: Prediction, Spatial Data, Network Data, Text as Data, Webscraping
  - Week 14 (May 23 & 25): Data Analysis Paper Workshop
  - May 6: Final Data Analysis Paper due
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**ADDITIONAL RESOURCES, FINE PRINT, AND THINGS I HAVE TO PUT ON THE SYLLABUS****Campus Resources**

As an SU student you have access to a variety of resources that can help you in this class and beyond. Please make use of them.

- Mental health and overall well-being are significant predictors of academic success. As such it is essential that during your college experience you develop the skills and resources effectively to navigate stress, anxiety, depression and other mental health concerns. Please familiarize yourself with the range of resources the Barnes Center provides ([ese.syr.edu/bewell](http://ese.syr.edu/bewell)) and seek out support for mental health concerns as needed. Counseling services are available 24/7, 365 days a year, at 315.443.8000, and I encourage you to explore the resources available through the Wellness Leadership Institute, <https://ese.syr.edu/bewell/wellness-leadership-institute/>
- Counseling Center: <http://counselingcenter.syr.edu/faculty-staff/helping-students-in-distress.html> and [http://counselingcenter.syr.edu/\\_documents/Bill\\_of\\_Rights.pdf](http://counselingcenter.syr.edu/_documents/Bill_of_Rights.pdf).
- Writing Center: [http://wc.syr.edu/?\\_ga=2.101027140.454082058.1534346263-1387513330.1433439063](http://wc.syr.edu/?_ga=2.101027140.454082058.1534346263-1387513330.1433439063)
- Tutoring Services: CenterforLearningandStudentSuccess:<http://class.syr.edu/tutoring>
- Financial Counseling: <http://financialaid.syr.edu/financialliteracy>
- Career Services: [http://thecollege.syr.edu/advising/index.html?\\_ga=2.101048900.454082058.1534346263-1387513330.1433439063](http://thecollege.syr.edu/advising/index.html?_ga=2.101048900.454082058.1534346263-1387513330.1433439063)
- Sexual Harassment/Title IX Concerns: Sheila Johnson-Willis, Compliance Officer. [titleix@syr.edu](mailto:titleix@syr.edu). 315.443.0211
- Sexual & Relationship Violence Response Team: 315.443.4715

**Harassment, Confidentiality, and Mandatory Reporting**

Federal and state law, and University policy prohibit discrimination and harassment based on sex or gender (including sexual harassment, sexual assault, domestic/dating violence, stalking, sexual exploitation, and retaliation). If a student has been harassed or assaulted, they can obtain confidential counseling support, 24-hours a day, 7 days a week, from the Sexual and Relationship Violence Response Team at the Counseling Center (315-443-8000, Barnes Center at The Arch, 150 Sims Drive, Syracuse, New York 13244).

Incidents of sexual violence or harassment can be reported non-confidentially to the University's Title IX Officer (Sheila Johnson Willis, 315-443-0211, [titleix@syr.edu](mailto:titleix@syr.edu), 005 Steele Hall). Reports to law enforcement can be made to the University's Department of Public Safety (315-443-2224, 005 Sims Hall), the Syracuse Police Department (511 South State Street, Syracuse, New York, 911 in case of

emergency or 315-435-3016 to speak with the Abused Persons Unit), or the State Police (844-845-7269).

I will seek to keep information you share with me private to the greatest extent possible, but as a professor I have mandatory reporting responsibilities to share information regarding sexual misconduct, harassment, and crimes I learn about with the University's Title IX Officer to help make our campus a safer place for all.

### **Communication**

If you have questions about the material, chances are that you are not the only one. Therefore the best way to ask questions is in class. If your question is not related to class material or relevant to other students, please come to my office hours to talk about questions, difficulties with the class material or with homework, and so on. If you cannot make office hours, feel free to send me an email to set up an appointment.

I will usually respond to email within 24 hours during the week. I will not respond to emails during weekends, except for urgent matters. As with all business-related correspondence, please include an appropriate salutation, identify yourself, and write in complete sentences. Students are expected to check their email accounts regularly, as I will be using email to provide announcements and updates about the course. See Syracuse's email policy at <http://supolicies.syr.edu/it/email.htm>.

### **Religious Observances**

SU's religious observances policy ([http://supolicies.syr.edu/emp\\_ben/religious\\_observance.htm](http://supolicies.syr.edu/emp_ben/religious_observance.htm)) recognizes the diversity of faiths represented in the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their traditions. Under the policy, students are given an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance, provided they notify their instructors no later than the academic drop deadline. For observances occurring before the drop deadline, notification is required at least two academic days in advance. Students may enter their observances in MySlice under Student Services/Enrollment/My Religious Observances/Add a Notification.

### **Accommodations for Students with Disabilities**

Syracuse University values diversity and inclusion; we are committed to a climate of mutual respect and full participation. There may be aspects of the instruction or design of this course that result in barriers to your inclusion and full participation in this course. I invite any student to contact me to discuss strategies and/or accommodations (academic adjustments) that may be essential to your success and to collaborate with the Center for Disability Resources (CDR) in this process.

If you would like to discuss disability-accommodations or register with CDR, please visit Center for Disability Resources. Please call (315) 443-4498 or email [disabilityresources@syr.edu](mailto:disabilityresources@syr.edu) for more detailed information.

The CDR is responsible for coordinating disability-related academic accommodations and will work with the student to develop an access plan. Since academic accommodations may require early planning and generally are not provided retroactively, please contact CDR as soon as possible to begin this process.

### **Academic Integrity**

Syracuse University's Academic Integrity Policy reflects the high value that we, as a university commu-

nity, place on honesty in academic work. The policy holds students accountable for the integrity of all work they submit and for upholding course-specific, as well as university-wide, academic integrity expectations. The policy governs citation and use of sources, the integrity of work submitted in exams and assignments, and truthfulness in all academic matters, including course attendance and participation. The policy states that any work a student submits for a course must be solely their own unless the instructor explicitly allows collaboration or editing. The policy also requires students to acknowledge their use of other peoples' language, images or other original creative or scholarly work through appropriate citation. These expectations extend to the new, fast-growing realm of artificial intelligence (AI) as well as to the use of websites that charge fees or require uploading of course materials to obtain exam solutions or assignments. Students are required to ask their instructor whether use of these tools is permitted – and if so, to what extent – before using them to complete any assignment or exam. Students are also required to seek advance permission from instructors if they wish to submit the same work in more than one course. Failure to receive this permission in advance may violate the Academic Integrity Policy. Under the policy, instructors who seek to penalize a student for a suspected violation must first report the violation to the Center for Learning and Student Success (CLASS). Students may not drop or withdraw from courses in which they face a suspected violation. Instructors must wait to assign a final course grade until a suspected violation is reviewed and upheld or overturned. Upholding Academic Integrity includes abiding by instructors' individual course expectations, which may include the protection of their intellectual property. Students should not upload, distribute, or otherwise share instructors' course materials without permission. Students found in violation of the policy are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered, as outlined in the Violation and Sanction Classification Rubric. Students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. The Academic Integrity Policy can be accessed at <https://class.syr.edu/academic-integrity/policy/>.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level.

All academic integrity expectations that apply to in-person quizzes and exams also apply to online or at-home quizzes, assignments, and exams. In this course, all work submitted for quizzes, assignments, and exams must be yours alone. Discussing quiz or exam questions with anyone during the quiz or exam period violates academic integrity expectations for this course. Using websites that charge fees or require uploading of course material (e.g. Chegg, Course Hero) to obtain exam solutions or assignments completed by others and present the work as your own violates academic integrity expectations in this course.

This class will use the plagiarism detection and prevention system Turnitin. You will have the option to submit your papers to Turnitin to check that all sources you use have been properly acknowledged and cited before you submit the paper to me. I will also submit all papers you write for this class to Turnitin, which compares submitted documents against documents on the Internet and against student papers submitted to Turnitin at SU and at other colleges and universities. I will take your knowledge of the subject matter of this course and your writing level and style into account in interpreting the originality report. Keep in mind that all papers you submit for this class will become part of the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers.

**Privacy and Student Records**

The Family Educational Rights and Privacy Act (FERPA) sets forth requirements regarding the privacy of student records. FERPA governs both the access to and release of those records, known as education records, and the information they contain. Under FERPA, faculty have a legal responsibility to protect the confidentiality of student records. For additional information about FERPA and SU's FERPA policy, see: <http://www.syr.edu/registrar/staff/ferpa>.