

UEP 305 and 305A: Urban Data Analysis

Fall 2021

Lecture: Tuesdays and Thursdays, 1:30-2:55pm PST in Weingart 117

Lab: Tuesday or Thursday 3:15-4:40pm PST in Fowler 110

Professor Seva Rodnyansky (he/him/his) srodnyansky@oxy.edu

Office hours: Wednesday 10:15am - 12pm and Friday 12:30pm - 2:30pm at UEP - 1882 Campus Road #205. Sign-up [link here](#)

Teaching Assistant Jada Ho jho2@oxy.edu

Office hours: Monday 1-3pm

This Syllabus is subject to change throughout the semester. Students will be notified if the syllabus changes. The most updated copy is the one posted on Moodle.

Course Description: In this course, students will learn how to document and analyze urban and environmental problems and public policies using quantitative data. Quantitative data provide a compelling means by which we can understand the magnitude of urban problems and who is impacted by these problems across demographic groups, neighborhoods, cities, and countries. Quantitative data can also help identify solutions, including public policies, and then evaluate the effectiveness of those solutions. Ultimately, our task is to develop quantitative reasoning skills in order to mobilize facts in the pursuit of a more just and equitable urban society. In the words of urban geographer Elvin Wyly: "Get mad. Get data. Get to work." Or, as Daniel Patrick Moynihan once said: "You can't solve a problem until you first learn how to measure it."

Data is all around us. Using, interpreting, and understanding where it comes from is the core of numerous professions and pursuits in both the urban and environmental policy realms. This course reviews the basic foundations of statistics for social science applications. This will enable you to better understand and consume data and statistical information as well as producing statistical analyses yourself. Tools such as Microsoft Excel and Stata will be used to manage and analyze data. Through the group research project, you will put your ideas into action. UEP 305 will prepare you to conduct your senior comprehensive research projects and act as a stepping stone toward other courses focused on quantitative analysis.

Student Learning Outcomes:

1. Critically think about quantitative data: how it is used and where it comes from
2. Develop technical and statistical skills using Excel and Stata

3. Understand the research design process from a social science perspective
4. Carry out a research project focusing on topics in urban and environmental policy
5. Assess key pieces of quantitative research using an equity lens

CPMS Core: UEP 305 fulfils the [CPMS core requirement](#).

Course Structure

- Two 1.5-hour lecture sessions each week
 - Most sessions in-person
 - A few sessions virtual – log in to Zoom for synchronous virtual lecture
 - A few sessions recorded – watch the recording at home
- One 1.5-hour lab session each week.
 - Attend your assigned lab day. If you have a conflict and need to attend the other lab day, email Prof. Rodnyansky and Jada.
 - Mixture of synchronous & asynchronous
- Office hours: both Prof. Rodnyansky and Jada will hold regular office hours. Use class time effectively to get your questions answered, especially since others may have the same questions as you.

Credit Hour Policy

UEP 305 is a 4-unit course with a 0-unit lab associated with the course. It is expected that students in this class will be devoting at least twelve (12) hours a week (including in-class time and in-lab time) on average.

Course Materials

- The current syllabus will be posted on Moodle.
- Textbook information & links are in the Texts and Software section below.
- **Other readings, assignments, and in-class worksheets will be posted on Moodle.** Please read all readings before the class for which it is assigned.
- **You will turn in all assignments on Moodle.** Assignments should be turned in online, on Moodle, in Microsoft Word or Excel, PDF, or handwritten and scanned to a PDF.
- Each student is responsible for turning in their own assignment; for explicit Group assignments, the whole group is responsible for turning in group assignments.

Texts and Software

[MAIN TEXTBOOK]

(MNF) Moore, Notz, and Fligner. The Basic Practice of Statistics. 7th Edition (or other). <https://www.amazon.com/Basic-Practice-Statistics-David-Moore/dp/146414253X>.

- Purchase available for ~\$30 used
- Rental available for ~\$11 until December 16, 2020

[OTHER USEFUL RESOURCES]

LANE Online Statistics Education: A Multimedia Course of Study (<http://onlinestatbook.com/>).
Project Leader: David M. Lane, Rice University.

- Access here, free: <http://onlinestatbook.com/2/index.html>

I&D. Illowsky and Dean. Introductory Statistics. 2018.

- Access here, free: <https://openstax.org/details/books/introductory-statistics>
- Download here, free: https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/IntroductoryStatistics-OP_i6tAl7e.pdf

Other readings & articles will be posted on Moodle.

[SOFTWARE]

- Bring your laptop to lecture and lab
- On your computer: Microsoft Excel, Word, Power Point.
- Available through Oxy lab via Parallels client: Stata
 - Install & test Parallels client access by Week 3. Scroll to Remote Computing in this link: <https://www.oxy.edu/offices-services/its/services/software>.
 - Also [available for purchase](#) for \$94/year.
- Other software: we will use some freeware toward the end of the semester

Course Requirements and Grading (covers both UEP 305 & 305A, together)

Participation and Attendance	10%
Problem Sets 1-5	25%
Midterm (take home)	25%
Group Project	
(3) timely & high quality drafts	15%
Group presentation	10%
Final paper	15%
	<u>40% total</u>
Final	20%

Participation and Attendance: I am not taking explicit attendance, it is up to you to show up to synchronous, asynchronous, and office hour sessions as you see fit. When you do attend, be ready and attentive. I may call on you during sessions Your questions are encouraged – it helps you learn, it helps others learn, and it helps me teach. There may be in-class activities in which you present your thoughts or work in progress. Your participation in the lab component is key as well, whether in small groups or in whole class portions. All of these things together account for the 10% participation grade.

Your health and well-being, and that of our community, are essential. If you are feeling any symptoms of illness, even if they are slight, please refrain from attending class until explicitly cleared by Emmons. Similarly, if you have a known exposure to someone who has tested positive for COVID-19, please do not return to class until Emmons confirms that you are cleared to participate in your usual activities.

Grading philosophy:

I care much more that students make a sincere effort and show their work, rather than just “get the right answer”. I take students’ work seriously and grading will reflect that. This is true across the various assignments in this class.

Grading rubric:

A: 93-100; A-: 90-93; B+: 87-90; B: 83-87; B-: 80-83; C+: 77-80; C: 73-77; C-: 70-73; D+: 67-70; D: 63-67; F: 0-63.

You will turn in all assignments on Moodle. Assignments should be turned in online, on Moodle, in Microsoft Word or Excel, PDF, or handwritten and scanned to a PDF.

You can work together on assignments (except Midterm and Final). However, each student is responsible for turning in their own assignment. Remember that working in a group does not necessarily mean you will get the right answer, or even a better grade.

For Group Project assignments, you will turn in one assignment per group, and each student will receive the group grade for that portion of the assignment.

All assignments are due by 1:30pm PST (class time) on the day they are due, unless noted otherwise.

Late Assignment Policy

Timely submission of assignments (including group project drafts) are crucial for UEP 305, since the material builds on itself. With the increased amount of digital communication and responsibilities for staff and faculty this semester, timely submission is even more crucial. Late assignments derail faculty’s ability to provide timely grading and necessary comments on your project drafts.

Late assignments should be posted to Moodle. They will be marked down one letter grade (e.g., from B to B-) for each 24-period that they are late.

I understand that things come up and especially this semester. If there is a health or medical issue, family emergency, or a similar situation, I recognize that these type of life issues can sometimes arise unexpectedly. If you are unable to turn the assignment in on time or attend a synchronous class, please communicate to me and we will work out

a plan. Similarly, if you must miss a synchronous class due to reasons of faith or conscience, please communicate with me as early in the semester as possible.

Assignment Return Policy

My commitment to you is to return graded assignments and post grades to Moodle within 1 week of receiving the assignments from you. If this has to change for some unforeseen reason, I will notify you.

List of Assignments and Deadlines

Assignments Overview	Upload to Moodle by 1:30 pm PST on:
Problem Set 1	Thursday, September 16
Problem Set 2	Thursday, September 30
Group Project Proposal	Thursday, October 7
Problem Set 3	Tuesday, October 19
Take Home Midterm Due	Tuesday, October 26
Group Project Descriptive Analysis draft	Tuesday, November 2
Problem Set 4	Tuesday, November 9
Group Project Methods and Results draft	Tuesday, November 16
Problem Set 5	Tuesday, November 23
Group Project in-class Presentations	Tuesday November 30 & Thursday December 2
Group Project Final Paper	Friday December 2, not considered late until Thursday December 9

Class Topics by Week

See Moodle “Reading Schedule” for weekly reading schedule

In-person, recorded, and virtual format is SUBJECT TO CHANGE. Changes will be communicated by Moodle & email

- **In-person:** come to class
- **Recorded:** watch lecture recording posted on Moodle
- **Virtual:** attend class synchronously via Zoom

Week #	Date	Format	Lecture Topic	Assignments (due @ class time)
1	8/31	In-Person	Course Intro	
1	9/2	In-Person	Types of Research and Variables	
1	Lab	In-Person	Excel: Basics and More	
2	9/7	Recorded	Descriptive Statistics	
2	9/9	Virtual	Variance and Standard Deviation, intro to Normal Distributions	
2	Lab	In-Person	Excel: Charts and Descriptives	
3	9/14	In-Person	Sampling and Standard Normal Calcs.	
3	9/16	Recorded	Central Limit Theorem & Confidence Intervals	Assignment 1 due
3	Lab	In-Person	Excel: Pivot Tables, conditional formatting, variance & SD	
4	9/21	Recorded	Scatter Plots and Correlation	
4	9/23	In-Person	Research Design, Research Ethics	* Introduce Group Project
4	Lab	In-Person	Excel: Scatter plots; correlations	
5	9/28	Recorded	Probability	
5	9/30	In-Person	Data: Where is it?	Assignment 2 due
5	Lab	In-Person	Excel: Data Management	
6	10/5	In-Person	Regression Intro	
6	10/7	In-Person	Regression continued	Group Project Proposal due
6	Lab	In-Person	Excel: Regression & Interpretation	
7	10/12	NO CLASS	NO CLASS - FALL BREAK	
7	10/14	In-Person	Binary and Count dependent variables	
7	Lab	In-Person	Thursday only - Stata: Intro	
8	10/19	In-Person	Midterm Review	Assignment 3 due
8	10/21	NO CLASS	Work on your midterm	Assignment 3 handed back
8	Lab	In-Person	Tuesday only - Stata: Intro	

9	10/26	In-Person	Statistical Tests and Hypotheses: z-test	Take-Home Midterm due
9	10/28	In-Person	Statistical Tests and Hypotheses: t-test	
9	Lab	In-Person	Stata: regression	
10	11/2	In-Person	Regression inference	Group Project Descriptive Analysis due
10	11/4	In-Person	Two-sample T statistics	
10	Lab	In-Person	Stata: data management	
11	11/9	In-Person	Chi Squared tests	Assignment 4 due
11	11/11	In-Person	ANOVA	
11	Lab	In-Person	Stata: Significance Tests	
12	11/16	In-Person	Binomial Probability and distribution	Group Project Methods and Results draft due
12	11/18	In-Person	Text as Data	
12	Lab	In-Person	AutoCarto	
13	11/23	In-Person	Spatial Data: Statistics, Geography, GIS	Assignment 5 due
13	11/25	NO CLASS	THANKSGIVING	
13	Lab	NO LAB		
14	11/30	In-Person	Group Project Presentations 1	
14	12/2	In-Person	Group Project Presentations 2	
14	Lab	In-Person	Group Presentations during Lab	
Reading Days		NO CLASS	Group Project Final Paper Due on Dec 2, not considered late until Dec 9	

Course/College Policies and Support Services

Statement of the Shared Academic Integrity Commitment

Academic Integrity is a shared community value. It is built around trust and respect between members of the Occidental Community, and embodies a commitment to honesty and integrity in every aspect of one's academic life.

All members of the Occidental community are committed to uphold the highest degree of academic integrity. Unless stipulated otherwise, the academic work done for all assignments is expected to be the student's own, and students give proper credit to the ideas and work of others.

Signing the Academic Integrity Commitment at matriculation and at the beginning of every semester represents a student's affirmation to uphold the shared values of honesty and integrity. When signing the Integrity Commitment associated with work in a course, students are affirming that they have not cheated, plagiarized, fabricated, or falsified information; nor assisted others in these actions.

[Link](#) to Student Handbook (which includes the framing of the commitment, definitions of Academic Ethics, and Process for alleged violations of the commitment)

Title IX and Role of Faculty member as Mandatory Reporter ([Link](#) to Title IX)

In the event that you choose to write or speak about having experienced sexual misconduct, including sexual assault, dating violence, domestic violence, stalking, sexual exploitation or any other form of sexual and/or gender-based harassment, as a designated Responsible Employee, I must notify the Title IX Office. They will contact you to let you know about accommodations and support services at Oxy and reporting options both on and off-campus. You have no obligation to respond to the Title IX Office or to meet with them to discuss support services and reporting options.

If you do not want the Title IX Office notified, instead of disclosing this information to your instructor, either through conversation or a class assignment, you can speak confidentially with the following people on campus:

- Oxy's Survivor Advocate, Project SAFE (survivoradvocate@oxy.edu)
- Emmons Counseling (For appointments, call: 323-259-2657)
- Rev. Dr. Susan Young, Office of Religious and Spiritual Life (young@oxy.edu)

The sexual misconduct policy, along with additional resources, can be found at: <http://www.oxy.edu/sexual-respect-title-ix/policies-procedures>. If you would like to contact the Title IX Office directly, you can email Title IX Coordinator Alexandra Fulcher at afulcher@oxy.edu or call 323-259-1338.

Special Accommodations/Learning Differences ([Link to Disability Services](#))

Students with documented disabilities and learning differences who are registered with Disability Services are required to present their accommodation letter to the instructor at the beginning of each semester, or as soon as possible thereafter. Any student who has, or thinks they may have, a physical, learning, or psychological disability may contact Disability Services at accessibility@oxy.edu to learn about available services and support. More information is available at <http://www.oxy.edu/disability-services>.

Accommodations for Reasons of Faith and Conscience ([Link to the policy in Catalog](#))

Consistent with Occidental College's commitment to creating an academic community that is respectful of and welcoming to persons of differing backgrounds, we believe that students should be excused from class for reasons of faith and conscience without academic consequence. While it is not feasible to schedule coursework around all days of conviction for a class as a whole, faculty will honor requests from individual students to reschedule coursework,

to be absent from classes that conflict with the identified days. Information about this process is available on the ORSL website: <https://www.oxy.edu/office-religious-spiritual-life>

COVID-Specific Policy on Masks. Faculty have the option of stipulating that masks are required for a given course, even if local and College regulations at the time change as to no longer require universal indoor masking. If you wish to plan to require masks for the entire semester, you may wish to adapt the below statement and include it in your syllabus.

Students are expected to wear masks at all times during all indoor classroom activities.

Students should not eat or drink in class; please step outside if you need to remove your mask for even a brief period of time.

Classroom Responsibilities

Teachers and students share the responsibility of learning and teaching. I see my responsibility as creating the space and stimulating enthusiasm for learning, coming prepared to class, creating the goals and structure for a course, introducing concepts and ideas, and facilitating the sharing of knowledge amongst the students and between the students and myself. Students are responsible for attending and participating in class, completing assignments in a timely manner, and being prepared to discuss readings and material in class.

Classroom Community and Online Learning

UEP 305 is designed to facilitate a co-learning community of students, both informally in the classroom and formally through the Group Project. Students are responsible for engaging in respectful, open, and thoughtful discussion with each other and the professors; faculty are responsible for ensuring that discussions in the classroom are inclusive and productive.

As a student participating in an in-person and potentially online learning environment, you must abide by all College rules and regulations including, but not limited to, rules in the applicable course syllabus/outline, the Student Code of Conduct Policy, the Policy on Sexual Harassment and Discrimination, as well as any applicable laws. Any violation of these rules may lead to disciplinary action, up to and including expulsion from the College, and/or legal action.

Classroom Etiquette

In the classroom – in-person or digital – I commit to making myself as visible, audible, and legible as possible.

By coming to class, you signal that I am able to call on you or ask you a question about the course material during throughout the session. Students who join digitally have the option to keep their video on OR off during synchronous or asynchronous sessions.

However, the same principle applies – I can call on you whether your video is off or on. Similarly, in the digital realm, we will be using Chat, Breakout Rooms, Whiteboards, and Screen Sharing, among other features, for some of the activities in this course. By joining the session, you will be expected to participate in these activities as necessary.

If there are special circumstances that make this particularly difficult for you, please reach out to me directly.

Recordings

Online classes may be recorded by your instructor. This means that the audio-visual and chat portions of each class may be recorded and then stored on the College's servers. Recordings will be made available through Moodle (or another secure platform), but only for the express and sole use of those registered in the course. The recorded material will be removed at the end of the semester. No other recording of classroom instruction is permitted. The sharing, altering, or distorting of any audio-visual capture of a class session is not permitted. All content contained in the records shall be subject to the College's Policy on Intellectual Property.

Once waivers are signed, I will be recording class sessions in case students want to view sessions they have missed due to time zones or unforeseen circumstances.

Lived name policy

Occidental College seeks to provide an inclusive and non-discriminatory environment by making it possible for students to use a lived first name and pronouns on college records when a legal name is not required. Students are encouraged to use Zoom to display their lived name, pronouns, and profile picture (in case you are off video). These can be set at <https://occidental.zoom.us/profile>.

Discrimination, Harassment, and Retaliation policy

<https://www.oxy.edu/student-handbook/general-college-policies/discrimination-harassment-and-retaliation>

I strive to foster an inclusive classroom environment. Consistent with College policy on [discrimination, harassment, and retaliation](https://www.oxy.edu/student-handbook/general-college-policies/discrimination-harassment-and-retaliation), I seek to maintain an environment of mutual respect among all members of our community. Please come to me with any concerns.

Equity & Justice in an Inclusive Learning Environment.

This classroom is a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, ethnicities, gender identities and expressions, national origins, political affiliations, religious affiliations, sexual orientations, abilities, and other visible and nonvisible identities. The wide array of perspectives that each of us contributes to this class is a resource that will strengthen and enhance our intellectual community. All members of this class are expected to co-create and engage in a respectful, welcoming, and inclusive environment for every other member of the class. In this context, we may speak as individuals or we may choose to represent ourselves as a member of a group. You need not represent any group, only

yourself, though you may choose to represent a group, if you wish. Additionally, part of equity & justice work is to dismantle barriers to success for all people, particularly those who belong to groups that have been marginalized and minoritized. If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your success or accurate assessment of achievement, or if there are ways we can improve the effectiveness of this course for you personally or for other students or student groups, please let me know. Your suggestions about how to improve the value of justice, equity, inclusion, and diversity in this course are encouraged and appreciated.

Support Services

The college provides a set of resources to students to support them in learning. The [Writing Center](#) provides writing assistance to students to develop ideas, draft, and revise papers.

Students with documented disabilities who are registered with [Disability Services](#) are required to present their accommodation letter to the instructor at the beginning of each semester or as soon as possible thereafter. Any student who experiences significant physical or mental impairments may contact Disability Services at (323) 259-2969 to learn about available services and support. More information is available at <http://www.oxy.edu/disability-services>

Your health and well-being has always impacted learning and academic success, and this reality is only heightened as we learn and live through a global pandemic. Symptoms such as anxiety, depression, loss of motivation, difficulty concentrating, and strained relationships can occur. Emmons Counseling staff are committed to supporting the mental health needs of all of our students, regardless of where you're located.

The [Emmons Wellness Center](#) also provides important support services and can help you address issues of stress, medical and mental health, and overall well-being. Emmons provides virtual walk-ins, crisis support, and consultation to all students, and ongoing individual telecounseling to students residing in California. All students residing outside of California will have access to ongoing telecounseling through a national telecounseling service. Emmons also assists students with finding local therapy referrals. All students continue to have access to the 24/7 confidential hotline at (323) 341-4141. To get connected to any of the free, confidential services at Emmons call (323) 259-2657 or schedule an appointment online at <https://myhealth.oxy.edu> using your Oxy login credentials.

If you'd like to take advantage of the [College's Academic Coaching](#) resource, which offers one-on-one sessions focused on supporting your time management skills, online

learning strategies, and other study skills, you may schedule an academic coaching meeting by sending an email to academiccoaching@oxy.edu. Share what you'd like to work on, and an academic coach will schedule an appointment with you within a few days.

The Library's Teaching, Learning, and Research Support (TLRS) offers [library research consultations](#) and [discipline-specific peer tutoring for coursework](#) and [language learning](#). We also offer peer-to-peer [support for learning technologies](#) from Moodle and Zoom to Adobe, app making, and ProTools. We also offer peer-to-peer support for learning technologies in the Critical Making Studio on the ground floor of the library (contact dcoaguila@oxy.edu for more information).

The Writing Center offers opportunities to work on all forms of writing for any class or other writing tasks such as personal statements, proposals, senior comprehensives, etc. We offer peer-to-peer consultations with knowledgeable Writing Advisers and sessions with Faculty Writing Specialists. For Fall 2021, most of our appointments will be synchronous in-person sessions, with some availability for Zoom virtual meetings and asynchronous feedback. We are located on the ground floor of the Academic Commons. See the [Writing Center website](#) for more information about our hours and how to sign up for appointments. Please contact the Writing Center Director, Prof. Prebel (jprebel@oxy.edu; x1307) for more information on how the Writing Center can work with you.

The [Intercultural Community Center \(ICC\)](#) seeks to uplift and support the experiences of students who identify as BIPOC, LGBTQIA+, low income or first generation college students. The ICC also aims to reduce institutional barriers for minoritized groups through intersectional programming, identity-specific services and structural resources. To learn more, contact icc@oxy.edu, or reach out directly to Chris Arguedas, at carguedas@oxy.edu.

Family Involvement

As many of you are learning from home this semester, you may have family around who are willing and able to provide you with support. While general support is necessary and welcomed by many, in order to protect your academic growth and ensure the integrity of this course, this statement serves as a reminder that your work must be your own. While office hours are always available for students, they will not be available for parents/guardians/family members. As always, if your parent/guardian has concerns, they are welcome to [contact the Dean of Students office](#).

Land Acknowledgement

Occidental College sits on the traditional territory and homelands of the Tongva people. Please click through to read more about the [Gabrielino-Tongva tribe](#) and about the practice of [land acknowledgement](#).