Term Information

Effective Term	Summer 2026
Previous Value	*Autumn 2021*

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

We would like to change SOCIOL 5649 from a 3 credit course to a 4 credit course.

What is the rationale for the proposed change(s)?

As a 3-credit course, the class includes two lectures and one lab session each week. The primary goal is to establish a solid foundation in ordinary least squares (OLS) regression, preparing students for advanced coursework and their master's thesis. However, with only two 50-minute lectures, the instructor faces the challenge of condensing material or rushing through topics. Increasing lecture time would allow full coverage of the content without sacrificing depth, while retaining the lab component ensures students gain hands-on experience and remain engaged.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

Because this is a required course, students will graduate with one additional credit.

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Sociology
Fiscal Unit/Academic Org	Sociology - D0777
College/Academic Group	Arts and Sciences
Level/Career	Graduate, Undergraduate
Course Number/Catalog	5649
Course Title	Intro to Quantitative Research/Multiple Regression
Transcript Abbreviation	Quan Rsch/Mult Reg
Course Description	Assumptions, principles, and applications of the multiple regression model in sociological practice; basic model, dummy variables, and special functional forms.
Semester Credit Hours/Units	Fixed: 4
Previous Value	*Fixed: 3*

Offering Information

Length Of Course	14 Week, 12 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never

Campus of Offering   Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites   Prereq: 3487, 3549, Math 1151, Jr standing or above, and permission of instructor; or Grad standing.
Exclusions
Electronically Enforced   Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code   45.1101
Subsidy Level   Doctoral Course
Intended Rank   Junior, Senior, Masters, Doctoral

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

Course Details

Course goals or learning objectives/outcomes
- Students will develop a clear understanding of multiple regression, various functional forms of the generalized model, and regression diagnostics.
- Students will understand the assumptions inherent in regression analysis.

Content Topic List
- Underlying assumptions and statistical principles of Regression Analysis
- Statistical Methods
- Social Research
- Descriptive Statistics
- Exploratory Data Analysis
- Probability Theory
- Inferential Statistics

Sought Concurrence   No

Attachments

- Sociology 5649 AU25 Syllabus.docx: Course syllabus, no changes

  (Syllabus. Owner: Shank,Travis Alan)

Comments

Last Updated: Vankeerbergen,Bernadette
Chantal
01/14/2026

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Shank,Travis Alan	11/25/2025 03:56 PM	Submitted for Approval
Approved	Downey,Douglas B	12/01/2025 09:42 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	01/14/2026 10:40 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Neff,Jennifer Vankeerbergen,Bernadette Chantal Wade,Macy Joy Steele,Rachel Lea	01/14/2026 10:40 AM	ASCCAO Approval

SOCIOL 5649
Introduction to Multiple Regression

Autumn 2025

Time and Place:

<u>Lecture</u>:   Tuesdays and Thursdays, 9:35 AM to 10:25 PM, Scott Lab E103

<u>Lab</u>:   Fridays 10:20 AM to 11:15 PM, Townshend Hall 250

Instructor:

Laura Dugan, PhD (she/her)
Ralph D. Mershon Professor of Human Security, Professor of Sociology
Office: 107 Townshend Hall   **Office Hours**: Tuesdays & Wednesdays 2:30 to 3:30
Email: dugan.226@osu.edu   pm or by appointment. Note that the Wednesday time
Course Material is available on Carmen   is after the GTA's lab hours for additional support
before assignments are due.

Graduate Teaching Assistant:

Meggan Green (she/her)   **Office Hours**: Wednesdays 12:00 to 2:00 pm in
Office: 204 Townshend Hall   workshop format in Townshend Hall 250. This is a
Email: green.2730@osu.edu   dedicated co-work environment for homeworks and
projects. This is also an opportunity to bring questions
on the course material. This may alter on exam weeks
to better accommodate the students' needs.

Course Prerequisites:

Introductory statistics class or permission of instructor

Course Overview:

This is the first in a two-semester graduate-level sequence introducing statistics for the social sciences. The primary goal of this course is to help you develop an intuitive understanding of statistical concepts, while gaining hands-on experience with data analysis using Stata and learning how to effectively communicate your findings. We will focus on applied linear regression analysis, exploring both its practical implementation and the theoretical foundations that support it. Regression analysis and inferential statistics aim to estimate relationships between variables, ideally producing estimates that are unbiased, efficient, or at least consistent. In the classical linear regression model, these properties rely on a set of rigorous assumptions about the data and the causal relationships being modeled. We will examine these assumptions, learn how to test them, and explore potential remedies when they are violated—all grounded in mathematical reasoning, from basic algebra in the bivariate case to matrix algebra in the multivariate case.

While learning to run regressions and interpret output is essential, it is insufficient for tackling the complexities of real-world data. Therefore, we will also delve into the theoretical underpinnings of regression models to help you understand what's happening with your data. This deeper understanding will empower you to make informed adjustments and avoid publishing misleading or incorrect findings.

Course Format:

I teach using incomplete lecture notes that we will complete together during class using a document camera. This interactive approach encourages active learning and helps you build a personalized and integrated understanding of the material. I recommend purchasing a large three-ring binder to organize your notes— many alumni have told me they continue to use these notes in their professional work. The notes include examples with Stata commands that will be directly applicable to your assignments. In addition to lectures, the GTA will lead weekly lab-based recitations on Fridays. These sessions will reinforce the concepts covered in class and provide practical experience using Stata. To succeed in this course, you'll need to attend both lectures and recitations. Each component is designed to complement the other, ensuring that you not only learn the techniques but also understand when and how to apply them thoughtfully and rigorously.

Course Prerequisites:

This course assumes you have had an undergraduate level introductory to statistics course. I also assume that you have a basic understanding of algebra, calculus, and geometry.

Software:

Stata will be available to you for free in the Student Instructional Lab (SIL), which is located in 250 Townshend Hall. This classroom contains approximately 30 computer stations and is typically open during normal business hours (8am – 5pm) unless it is being used by other classes. I will post a SIL schedule on Carmen at the beginning of the semester in the admin module. For access to computers with Stata outside the instructional lab, the homework lab (room 160) is open from 8a-8p daily. If you are a sociology graduate student, you will also be able to access Stata using your office PC. If you wish to buy a copy of Stata for your personal use, I recommend purchasing an individual license through Stata's website. They have special pricing for students, the details of which are outlined at the following URL:

https://www.stata.com/order/new/edu/profplus/student-pricing/

Although Stata is not available on all university computers, I believe strongly that it is the best software package on the market for analyzing quantitative data, especially for users who are new to data analysis. The little you will lose in convenience, you will more than make up for in flexibility, utility, and quality.

Your Saved Work:

You will need to save your data, do file, and other documents from week-to-week. Have a plan to save this in either the cloud or on a flash drive, so you are prepared regardless of where you work.

Books

Required

- Gordon, Rachel A. 2012. *Applied Statistics for the Social and Health Sciences.* New York, NY: Routledge.

Recommended

- Acock, Alan C. 2008. *A Gentle Introduction to Stata.* Second Edition. College Station, TX: Stata Press.

- Agresti, Alan & Barbara Finlay. 2008. *Statistical Methods for the Social Sciences (4th Edition)*. Boston, MA: Allyn & Bacon.

- Aiken, Leona S. & Stephen G. West. 1991. *Multiple Regression: Testing and Interpreting Interactions*. Thousand Oaks, CA: Sage Publications.

- Allison, Paul. 1998. *Multiple Regression: A Primer.* Thousand Oaks, CA: Pine Forge Press.

- Cohen, Jacob, Patricia Cohen, Stephen G. West & Leona S. Aiken. 2002. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences (3rd Edition)*. Hillsdale, NJ: Lawrence Erlbaum Associates.

- Fox, John. 2015. *Applied Regression Analysis and Generalized Linear Models (3rd Edition)*. Thousand Oaks, CA: Sage Publications.

- Gelman, Andrew & Jennifer Hill. 2006. *Data Analysis Using Regression and Multilevel/Hierarchical Models*. New York, NY: Cambridge University Press.

- Jaccard, James J. & Robert Turrisi. 2003. *Interaction Effects in Multiple Regression (2nd Edition)*. Thousand Oaks, CA: Sage Publications.

- Wooldridge, Jeffrey M. 2016. *Introductory Econometrics: A Modern Approach* (6th Edition). Boston, MA: Cengage Learning.

Course Communication

I make heavy use of the course website on Carmen to post completed lecture notes, homework assignments, data sets, Stata code, etc. You are responsible for checking the course website every day, especially in the morning on days when we have class.

All class communication should be through Carmen using the mail feature. I try to respond to students' messages within 48 hours, excluding evenings and weekends.

Grading

Homework

Throughout the semester, you will complete up to eight homework assignments. These are designed to reinforce concepts from both lectures and labs. All assignments are currently available on Carmen, so you can begin working on them as you learn the material. Starting early allows you to apply new ideas while they're still fresh, which can deepen your understanding. Note that we might make small changes to the homework assignments if we see a need. We will alert you to these changes when we make them.

Once we've covered all the necessary material for a given assignment, I'll announce its due date—always at least one week in advance. Assignments must be submitted electronically via Carmen. Please plan ahead so that homework does not interfere with your attendance or punctuality in class.

Collaboration Policy

I strongly believe that collaboration enhances learning. You are encouraged to work together, discuss ideas, and help one another. Some of you will solidify your understanding by teaching others, while others will benefit from peer support. However, it's essential that each student completes and submits their own individual work.

Understanding how to apply multiple regression techniques to analyze data is a key goal of these assignments. While it may be possible to earn a good grade by relying on others, doing so will hinder your ability to succeed in this course and grow as a rigorous scholar.

Assignments that appear overly similar will be flagged for potential academic misconduct. If you're unsure about the line between collaboration and copying, please speak with me or the GTA before submitting your work.

<u>Conceptual Exercise Section</u>

Most assignments include a "Conceptual Exercise" section, worth up to 5/1 points. This is a quasi-extra credit opportunity: you can earn up to 4 bonus points, but if you leave it blank, you'll lose 1 point. This section is designed to help you engage more deeply with key concepts from the lectures. You're especially encouraged to discuss these ideas with classmates, the instructor, and the GTA.

<u>Grading and Best Practices</u>

Homework assignments account for 20% of your final grade. Your lowest homework score will be automatically dropped. That said, I strongly recommend putting forth your best effort on each assignment—you never know when you might need that buffer.

Course Project

Each student will complete a project that demonstrates mastery of the methods covered in class. The core objective is to run a multiple regression model, evaluate its assumptions, refine the model as needed, and interpret the results. Your analysis will focus on **one primary independent variable** and **one continuous dependent variable**. All other independent variables will serve as **controls**, and you do not need to test assumptions for them.

Your **dependent variable must be continuous**, meaning it should have at least four distinct values and be measured on an ordinal or ratio scale (not categorical).

I encourage you to choose a topic that genuinely interests you. Graduate students are especially encouraged to select a topic aligned with their second-year paper or thesis. Early in the semester, we'll cover how to download data from ICPSR, with the hope that you can begin working with data relevant to your future research. If your ideal dataset is unavailable or too complex, you may use a subset or a related, more accessible dataset. The goal is not to complete your thesis, but to begin thinking critically and practicing data analysis in a meaningful context.

<u>Project Timeline & Requirements</u>

PART 1: PROJECT PROPOSAL

Due: September 18

Submit a 2-page, double-spaced proposal that includes:

- A brief description of the research problem
- Theoretical justification for your hypothesis
- Data source and current status (e.g., downloaded, pending)
- Sample size (minimum 30 observations)
- Strengths and limitations of the sample
- List of relevant variables and their measurement units
- Clear identification of your unit of analysis
- Conceptual definitions of your independent and dependent variables

Your problem should be framed in terms of causality—examining the impact of one independent variable on one dependent variable—while acknowledging that your analysis will not establish causality definitively.

PART 2: EXPLORATORY DATA ANALYSIS

Due: October 23

Submit a **4-page, double-spaced** report (excluding tables and figures, which should be attached at the end). This section should:

- Reintroduce your research question and theoretical motivation
- Provide a qualitative description of the relationship between your key variables using tables and graphs
- Explore control variables to identify potential issues (e.g., multicollinearity, skewness)
- Avoid including any regression output

Tables should be created in Word or Excel (not pasted output) and modeled after those in academic journals. This version will be shared with a peer reviewer (anonymous—please omit your name). Peer reviews are due **October 30**.

PART 3: REGRESSION ANALYSIS & MODEL DIAGNOSTICS

Due: December 2

Submit a **6–8 page, double-spaced** report (plus tables) that includes:

- Begin with a restatement of your research question and a description of your data.
- A multivariate regression analysis with hypothesis testing
- Assumption checks for your primary independent variable
- Model diagnostics to identify outliers or influential observations
- Discussion of alternative methods to improve your analysis

FINAL PRESENTATION

Prepare a 5–10 minute presentation covering:

- Your research question and motivation
- Data source and structure
- Regression model and key findings
- A visual showing the relationship between variables
- Where assumptions broke down and how you addressed them
- Implications for validity and limitations of your analysis

NOTE: After they present, students will have 3 days to submit a revised project if they want to make changes.

Midterm and Final Exams

Both the **midterm and final exams** will be take-home and made available **one week before their respective due dates**. I will clearly communicate which material will be covered, though please note that the course pacing may not align perfectly with the syllabus.

The exams will emphasize **conceptual understanding** of ideas discussed in class. In contrast, homework assignments and the project will focus more on the **application** of those ideas. To help you prepare, refer to the "deeper questions" at the end of some lecture notes—these are representative of the types of questions you may encounter on the exams.

The **final exam** will focus on material covered **after the midterm**, but success will require integrating concepts from the entire course.

Important Guidelines

- **Late exams will not be accepted.**

- Exams are **individual assessments**. Unlike homework, **collaboration is not permitted**.

- If you have questions about the exam content or format, please reach out to **me directly**—not the GTA.

Assignment Logistics

All written assignments must adhere to the following formatting guidelines:

- Typed, double-spaced, using **12-point font**

- **Formulas** should be created using an equation editor (e.g., Microsoft Equation Editor or MathType)

- **Tables** should be constructed in **Word** or **Excel**

- **Graphs** should be generated in **Stata**, unless otherwise directed by the GTA—in which case **Excel** may be used

- Always retain an **electronic copy** of your work before submitting

- All assignments must be submitted via **Carmen**

Grades at Ohio State are defined by **Faculty Rule 3335-8-21**, as approved by the Ohio Board of Trustees. According to this rule, instructors assess student performance based on:

- Comparison with other students in the course

- Comparison with students who have previously taken the course

- The instructor's expectations relative to the stated course objectives, informed by their experience and expertise

Effort alone does not determine your grade. Completing all course requirements does not guarantee a specific grade. Final grades will reflect how well you have met the learning objectives, using the criteria above.

The grading is as follows.

20%, Homework
30%, Project
50%, Two Exams (each exam 25%)

I will be using the standard OSU grading scale for this class, which is as follows:

A Range	B Range	C Range	D Range	Failing Grade
A 93-100	B+ 87-89.99	C+ 77-79.99	D+ 67-69.99	F < 60
A- 90-92.99	B 83-86.99	C 73-76.99	D 60-66.99	
	B- 80-82.99	C- 70-72.99		

Attendance

Regular attendance in both lecture and lab is essential for success in this course. Being present will help you understand the material, complete assignments and the project, and perform well on exams. We will take attendance during each class.

You do **not** need to email me if you miss a single class. However, if you anticipate missing **more than one session** over the semester, please let me know in advance so we can plan accordingly.

All classes are recorded via Zoom and posted on Carmen, along with my completed lecture notes. These recordings are intended to support your learning, especially if you need to miss class due to illness or other valid reasons. That said, I strongly discourage relying solely on recordings. Students who consistently skip class and depend only on the recordings tend to struggle on exams.

If you're feeling unwell or showing symptoms of COVID-19 or any other communicable illness, please stay home. Your health—and the health of others—comes first. I, along with the GTA, will gladly work with you to help you catch up on any missed content or assignments.

Additional Notes

Weather/Short-Term Closing

If in-person classes are canceled, I will notify you of the alternative methods of teaching that will be offered to ensure continuity of instruction for this class. Communication will be via Carmen.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. While statistics rarely includes controversial topics, the examples are drawn from social science and could touch upon controversial issues, beliefs, or policies. Any such examples are intended demonstrate the application of a statisitical issue to meet a relevant course objectives rather than promote any specific point of view. Students will be assessed on the statistical content of the course and not the substative topics used in application. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Greivances and Solving Problems

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Disability Statement (with Accomodations for Illness)

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If students anticipate or experience academic barriers based on a disability (including mental health and medical conditions, whether chronic or temporary), they should let their instructor know immediately so that they can privately discuss options. Students do not need to disclose specific information about a disability to faculty. To establish reasonable accommodations, students may be asked to register with Student Life Disability Services (see below for campus-specific contact information). After registration, students should make arrangements with their instructors as soon as possible to discuss your accommodations so that accommodations may be implemented in a timely fashion.

If students are ill and need to miss class, including if they are staying home and away from others while experiencing symptoms of viral infection or fever, they should let their instructor know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations.

slds@osu.edu
https://slds.osu.edu/
098 Baker Hall, 113 W. 12th Ave
614-292-3307 phone

Religious Accomodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement **and** the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the Civil Rights Compliance Office.

Policy: Religious Holidays, Holy Days and Observances

Academic Misconduct

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute Academic Misconduct.

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: **Any activity that tends to compromise the academic integrity of the University or subvert the educational process.** Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so please review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If an instructor suspects that a student has committed academic misconduct in this course, the instructor is obligated by University Rules to report those suspicions to the Committee on Academic Misconduct. If COAM determines that a student violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in the course and suspension or dismissal from the University.

If students have questions about the above policy or what constitutes academic misconduct in this course, they should contact the instructor.

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite, and others. These tools will help shape the future of work, research and technology, but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. **Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship, or on a course assignment unless such assistance has been authorized specifically by the course instructor.** In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. **If you think you have a legitimate and ethical reason to use generative AI, please present your case to me for approval.**

Creating an Environment Free of Harrassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a welcoming community. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission,

and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office (CRCO):

Online reporting form: http://civilrights.osu.edu/

Call 614-247-5838 or TTY 614-688-8605

civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Civil Rights Compliance Office to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Tentative Schedule:

This is an extremely aggressive list of topics which may need to be modified based on the pace of the course. Thus, I reserve the right to adjust the schedule of topics, and have indeed built in classes to accommodate overflow.

Date	Topic	Reading
Aug 26th & 28th	Class Introduction and review of random variables, estimators, probability distributions	
Sept 2nd & 4th	Properties of estimators & bivariate regression	Chapter 8, Gordon
Sep 9th & 11th	Bivariate regression	Chapter 8, Gordon
Sep 16th & 18th	Bivariate & multiple regression **PROJECT, PART I IS DUE ON 9/18**	Chapter 9, Gordon
Sep 23rd & 25th	Multiple regression, multicollinearity, & a brief introduction to matrix algebra	Chapter 9, Gordon; Section 14.3, Gordon
Sep 30th & Oct 2nd	Standardized coefficients, variations on functional form, and hypothesis testing	Chapter 12, Gordon
Oct 7th & 9th	Continued from above	
Oct 14th	Dummy variables & interactions. Thursday is Mid-semester break. **MIDTERM EXAM (released 10/7 due Monday 10/14)**	Chapters 10 & 11, Gordon
Oct 21st & 23rd	Interactions & heteroskedasticity **PROJECT, PART II IS DUE (NO NAMES) (10/23)**	Chapter 11, Gordon; Section 14.2, Gordon
Oct 28th & 30th	Continued from above **PROJECT PART II PEER REVIEWS ARE DUE (10/30)**	
Nov 4th & 6th	Nonstochastic variables	Chapter 13, Gordon
Nov 11th & 13th	Monday is veterans' day. No class. Thursday will be a project workday with the GTA in the lab.	TBD
Nov 18th & 20th	Nonindependence of error terms, serial correlation	Section 14.1, Gordon
Nov 25th	Nonnormality & influential observations, binary dependent variables	
Dec 2nd & 4th	Project Presentations **PROJECT, PART III IS DUE (12/2)**	
Dec 9th	Project Presentations	
	FINAL EXAM (released Tuesday 12/9, due Tuesday 12/16)	

NOTE: This syllabus provides a general plan for the course; deviations may be necessary.