Term Information

Effective Term   Autumn 2024

General Information

Course Bulletin Listing/Subject Area   Economics
Fiscal Unit/Academic Org   Economics - D0722
College/Academic Group   Arts and Sciences
Level/Career   Graduate
Course Number/Catalog   8877
Course Title   Experimental Economics Methodology
Transcript Abbreviation   Exp Econ.
Course Description   This course will equip students with the tools needed to design, run,
                                              and analyze a laboratory experiment that conforms to the norms and expectations of the
                                              field of experimental economics.
Semester Credit Hours/Units   Fixed: 3

Offering Information

Length Of Course   14 Week
Flexibly Scheduled Course   Never
Does any section of this course have a distance No
education component?
Grading Basis   Letter Grade
Repeatable   No
Course Components   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   8714, or instructor permission.
Exclusions
Electronically Enforced   Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code   45.0601
Subsidy Level   Doctoral Course
Intended Rank   Masters, Doctoral

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes	• By the end of the course students should be able to take a given research proposal, design an incentive-compatible experiment that is both feasible to run and addresses the proposed research question. • They should be able to formulate and execute a data analysis plan. They should know how to calculate the correct sample size for their given hypothesizes effect sizes. Students should know how to submit an IRB approval and apply for funding.
Content Topic List	• Theoretical discussions of incentives in experiments Relevant statistical techniques for experiments Programming interfaces used to design experiment software.
Sought Concurrence	No

Attachments

• 8877 syllabus.pdf

  (Syllabus. Owner: Tobin,Ricky Mase)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Tobin,Ricky Mase	01/26/2024 11:39 AM	Submitted for Approval
Approved	Yang,Huanxing	01/26/2024 03:30 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	02/02/2024 01:56 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Neff,Jennifer Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	02/02/2024 01:56 PM	ASCCAO Approval

Syllabus
ECON 8877 - Experimental Economics Methodology
Spring 2024

Contact Info:	Professor
Name	Prof. Paul J. Healy
Office	Arps 465A
E-mail (Preferred)	healy.52@osu.edu
Phone	614-247-8876
Office Hours	[Office hours go here]
Course Meeting Times	[Days and times go here]
Meeting Location	Arps Hall, Room 318
Course Website	http://carmen.osu.edu
Credit Hours	3
Mode of Delivery	in-person

Prerequisites: This course is designed for second-year students in the Economics PhD program. Students are expected to have taken ECON 8714. Exceptions to this prerequisite can be given at the permission of the instructor.

Course Objective: This course will equip students with the tools needed to design, run, and analyze a laboratory experiment that conforms to the norms and expectations of the field of experimental economics. Broadly, the course will cover theoretical discussions of incentives in experiments, including elicitation techniques, as well as empirical research on those methods. Students will also learn relevant statistical techniques for experiments that are not taught in the standard econometrics course sequence. Next, students will receive an introduction to various programming interfaces used to design experiment software. Finally, students will learn and discuss ethical considerations when running experiments, including sample size calculations, p-hacking, and the appropriate use of pilot experiments.

Learning Objectives: By the end of the course students should be able to take a given research proposal, design an incentive-compatible experiment that is both feasible to run and addresses the proposed research question. They should be able to formulate and execute a data analysis plan. They should know how to calculate the correct sample size for their

given hypothesizes effect sizes. Students should know how to submit an IRB approval and apply for funding. They should have the tools needed to begin the process of programming an experiment. And they should know how to handle changes to the design as needed, what to include as pilot data, and what to report in the final paper.

Recommended Texts: There are no required texts, but the following are recommended:

1. *Experimetrics*, by Peter Moffatt. ISBN-13: 978-0230250222

2. *Nonparametric Statistics for the Behavioral Sciences (2nd ed.)*, by Sidney Siegel and John Castellan, Jr. ISBN-13: 978-0070573574.

 No other materials are required for this course.

Assignments & Grades: There are four types of activities on which you will be assessed:

1. **Data Analysis Exercises (40%):** Students will be assigned four different data analysis exercises. In each, I will provide a dataset and require students to perform a specific data analysis exercise on that dataset. Examples include maximum likelihood estimation of competing models of preferences, bootstrapping estimates and standard errors, comparing fixed effects vs. random effects, or running a variety of statistical tests. Students may collaborate, but must turn in separate answers. Grading will be based on completeness and accuracy of the analysis. Each assignment will be given equal weight.

2. **Problem Set (20%):** I will assign one problem set based on the decision-theoretic portion of the course. Students will have two weeks to complete the assignment. Students may collaborate, but must turn in separate answers. Grading will be based on correctness of responses.

3. **Paper Proposal (20%):** Each student must submit a draft of an in-progress research project by the midpoint of the semester. Students are encouraged to discuss their ideas with others, but each must generate their own proposal. Students will also give a brief (15–20 minutes) in-class presentation of their proposal. Grading will be based on thoroughness of the proposal and whether the proposed design is feasible and addresses the stated research question.

4. **Participation (20%):** Students are expected to lead the discussion of one topic, and participate in all discussions. Grading will be based on recorded frequency of verbal participation in class. Students are expected to contribute verbally at least twice per week.

Students' letter grades will be determined by the sum of their grades on each of the four componentsmap. The final grading scale will be as follows:

Grade	Percent Range
A	100% to 93%
A-	< 93% to 90%
B+	< 90% to 87%
B	< 87% to 83%
B-	< 83% to 80%
C+	< 80% to 77%
C	< 77% to 73%
C-	< 73% to 70%
D+	< 70% to 67%
D	< 67% to 60%
E	< 60% to 0%

Course Policies: Attendance will not be enforced, but strongly encouraged. Students who miss class will likely receive a lower participation grade. Assignments may be turned in via email if needed, but deadline extensions must be approved in advance, except in cases of medical or family emergencies.

Student-Chosen Topics: The last few lectures of the course I can adapt to whatever topics students might be interested in learning. Please let me know in advance if there's a topic you'd like to learn about and I will do my best to add it to the schedule.

CarmenCanvas Access: You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your grades and any other handouts or assignments distributed via Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device (go.osu.edu/add-device) help article for step-by-step instructions.

- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click Enter a Passcode and then click the Text me new codes button that appears. This will text you ten passcodes good for 365 days that can each be used once.

- Install the Duo Mobile application (go.osu.edu/install-duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and IT support staff will work out a solution with you.

Ohio State's Academic Integrity Policy: 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 (studentconduct.osu.edu), 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 I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- Committee on Academic Misconduct (go.osu.edu/coam)

- Ten Suggestions for Preserving Academic Integrity (go.osu.edu/ten-suggestions)

- Eight Cardinal Rules of Academic Integrity (go.osu.edu/cardinal-rules)

Using Artificial Intelligence: The Ohio State policy on Articifal Intelligence states that 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 their own. These requirements apply to all students—undergraduate, graduate, and professional.

Copyright for Instructional Materials: The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct: The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. 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 Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,

2. Call 614-247-5838 or TTY 614-688-8605,

3. Or email equityosu.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 Office of Institutional Equity 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;
    4. Faculty member.

Your Mental Health: As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand mental health resources (go.osu.edu/ccsondemand) are available. You can reach an on-call counselor when CCS is closed at 614- 292-5766. 24-hour emergency help is available through the National Suicide Prevention Lifeline website (suicidepreventionlifeline.org) or by calling 1-800-273-8255(TALK). The Ohio State Wellness app (go.osu.edu/wellnessapp) is also a great resource.

Accessibility Accommodations for Students with Disabilities: The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability including mental health, chronic or temporary medical conditions, please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services (SLDS). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services.

Disability Services Contact Information

- Phone: 614-292-3307

- Website: slds.osu.edu

- Email: sldsosu.edu

- In person: Baker Hall 098, 113 W. 12th Avenue

Accessibility of Course Technology: This course requires use of CarmenCanvas (Ohio State's learning management system). If you need additional services to use these technologies, please request accommodations as early as possible.

- CarmenCanvas accessibility (go.osu.edu/canvas-accessibility)

- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)

Schedule (Tentative):

Week	Topics & Assignments
01	Theory: Incentives in Experiments I
01	Theory: Incentives in Experiments II
02	Theory: Model Testing & Minimal Experiments
02	Hypothesis Tests: Fey & Proschan (2010), p-values, units of observation
03	Siegal & Castellan, scales, contingency table tests, correlation tests
03	Tests of distributional differences
	Data Analysis Exercise (DAE) 1 assigned
04	Multiple hypothesis testing, Bonferroni-like corrections
04	Design & Ethics: power calculations, p-hacking
	DAE 1 due, DAE 2 assigned
05	Belief Elicitation: Scoring rules and incentive compatibility, Savage (1971)
05	Belief Elicitation: Multiple price lists, empirical evidence
	DAE 2 due
06	Student presentations I
	Paper Proposals due
06	Student presentations II
07	Regressions: Clustering vs Fixed effects vs Random effects
	Problem Set assigned
07	Regressions: Robust standard errors, Gillen Snowberg & Yariv (2019)
08	Regressions: ANOVA vs. dummy variable regressions, interactions, interactions in logit/probit
08	Bootstrapping, permutation tests
09	Maximum likelihood estimation I
	Problem Set due
09	Maximum likelihood estimation II
	DAE 3 assigned
10	Finite mixture models
10	Model selection: BIC, AIC, Cross validation
	DAE 3 due, DAE 4 assigned
11	Writing IRB Approvals
11	Getting funded
	DAE 4 due
12	Programming I: oTree
12	Programming II: zTree
13	Programming III: PHP/HTML/JavaScript
13	Programming IV: PHP/HTML/JavaScript Part 2
14	Application: Repeated games
14	Application: Real-effort tasks