

PSCI 3225: Strategy & Politics

Instructor: Dalton Dorr
Email: dalton.dorr@colorado.edu

Office Hours: Tuesdays 9:00-11:00am; or by appointment.
Zoom Meeting ID: 91008158472
Passcode: 679845

Syllabus

This syllabus represents a general plan for the course, you will find an outline of the course material beginning on page four (4) of this syllabus. I reserve the right to make changes to this syllabus and to the course outline as necessary. Students will be given advance notification of any changes to the course plan via email. Students are responsible for the contents outlined within this syllabus and any changes made thereafter.

Course Description

People make only a few decisions on a whim. The majority of the important decisions we make are based upon some measure of structure and calculation. Political actors consider the potential choices and preferences of other actors before strategically making their own decisions. To make sense of these deliberations this course introduces students to the tools and concepts of game theory, a powerful and highly general approach to understanding how people make decisions in strategic settings. Game theory has applications to many fields of inquiry including economics, sociology, biology, and, of course, political science. In this course, students will be introduced to the fundamentals of game-theoretic reasoning. This course will focus particularly on those aspects of game theory that are most useful for understanding politics, and consider how rational choice decision-making can guide and inform our understanding of real-world political phenomena.

This is an online, asynchronous introductory game theory course designed to help students understand the theory and application of rational-choice decision-making. The main objective of this course is to expand the methods that students use to analyze and apply theory to current political issues. By the end of this course students should be able to coherently discuss rational-choice decision-making processes on political and other social issues through the lenses of strategic interactions. Students should understand how to apply mathematical models in a rational-choice framework to explain both observed and unobserved outcomes from political events. Most importantly, students should understand the strengths and weaknesses of using rational-choice analysis to substantiate arguments and opinions about political issues.

Course Requirements

You are required to turn in assignments onto the canvas page for this course. This is a math class and you are required to show your work in order to receive full credit for your assignments. You need to have access to a camera or other software that allows you to upload images of your completed problem sets in .pdf or .jpg file extensions. You will also be uploading reaction papers for specified reading assignments. You are therefore required to have access to a computer with word-processing software that can save and upload .doc or .pdf file extensions.

Office Hours and Email Protocol

My office hours will be held on Zoom on Tuesdays from 9:00 am to 11:00 am or by appointment. The Zoom Meeting ID and passcode are posted at the top of this syllabus. These numbers should remain consistent for the duration of the course, if there are any changes to this information, I will send an email notification. I am best reached by email and I respond to emails within 24 hours Monday through Friday. I recommend you do not attempt to email me with time-sensitive questions on Friday as I do not guarantee I will get to them over the weekend.

Required Text

Game Theory for Political Scientists, James Morrow (1994)

The Morrow book is designed to help you work through the mathematical portion of this class. I will assign chapters of the Morrow book throughout the course. In addition to the Morrow book, we will be reading and discussing articles from political science journals which use the game theoretic methods that we will learn in the class. These readings will all be posted to canvas.

Grading

Your final grade will be based on the following four criteria:

Problem Sets: 25%
Response Papers: 20%
Participation: 10%
Midterm Exam: 20%
Final Exam: 25%

Problem Sets - 25%

There will be a total of six (6) problem sets throughout the course. Please note that the material in this class is a little technical and you will benefit enormously from repetition and practice. This is a class where you will learn by doing. As such, I strongly recommend that you take this requirement very seriously and attempt the problem sets on your own before seeking help from others. If you simply copy someone's answers, you will not learn anything from puzzling over the problems and will likely do poorly on exams. You are required to turn in every problem set on the date/section they are due. Because I discuss the problem sets in the following lecture, you will not be allowed to move forward in the class lectures until you have turned in the problem set from the previous section of the class.

Response Papers - 20%

Students are expected to write four (4) short response papers (1-2 pages) on specified readings throughout the course. Response papers should include a very brief summary of the paper as well as a major section dedicated to the persuasiveness of the arguments made by the authors of the paper. The response papers are to be completed after reading the assigned articles and before the next subsection of the class. Like the problem sets, you will be unable to move forward with class lectures until you have turned in the response paper from the previous section of the class.

The summary section of each response paper should not be any longer than two (2) sentences. The summary

should identify: 1) the primary research question of the paper and, 2) the proposed answer to the question. Afterwards students should discuss if they ‘buy’ the arguments being made by the authors. Students are encouraged to answer questions such as: *To what extent do you agree with the assumptions used by the authors?* and *What type of argument/evidence would lead you to change your mind about the arguments made in this paper and why?*

Participation - 10%

Your participation grade will be evaluated on your preparation, effort, and involvement in class discussion. Specifically, your grade is based on your discussion of course material across any of the following: discussion boards on canvas, office hours, or directly with me via email. Questions about lectures or about readings are considered in your participation grade. You will maximize your ability to get a good participation grade if you demonstrate to me that you are engaged in the class.

Midterm Exam - 20%

The midterm exam will be held on **Tuesday, November 10**. You will have a 24 hour window to begin the exam. Once started, you will have 4 hours to submit your exam to canvas. I will deduct 20 points from the exam grade for every hour that the exam is late. The exam is open note and open book, but you will not be permitted to work together or use outside help. The midterm exam will include substantive material covered in the readings as well as the mathematical components covered in the problem sets.

Final Exam - 25%

The final exam will be held on **Friday, December 11**. The final exam is comprehensive, which means it will cover material from the entire semester. Like the midterm, you will have a 24 hour window to begin the exam. Once started, you will have 4 hours to submit your exam to canvas. I will deduct 20 points from the exam grade for every hour that the exam is late. The exam is open note and open book, but you will not be permitted to work together or use outside help. The final exam will include substantive material covered in the readings as well as the mathematical components covered in the problem sets.

Letter Grade Scale

$A : > 93$; $A- : 92 - 90$

$B+ : 89 - 87$; $B : 86 - 83$; $B- : 82 - 80$

$C+ : 79 - 77$; $C : 76 - 73$; $C- : 72 - 70$

$D+ : 69 - 67$; $D : 66 - 63$; $D- : 62 - 60$

$F : < 60$

A Note on Math: Though the advanced study of game theory does require some knowledge of higher math, this introductory course does not involve any math more complicated than algebra and arithmetic. I will review most of the methods as we move through the semester, but recognize that the purpose of this course is to teach you to apply this math to decision-making scenarios. That said, if you are uncomfortable with algebra (solving for unknown parameters given multiple equations) you may struggle in this class. If you have concerns, please let me know.

Course Outline

Lecture	Content	Assignment
Unit 1	Making Decisions	
1.1.1	Game Theory in Political Science	Read: Morrow Ch.1
1.1.2	Utility, Risk, & Rationality	Read: Morrow Ch.2; Problem Set 1 due
1.2.1	Spatial Preference Models	Read: Morrow pg.104-109
1.2.2	Median Voter Theorem	Read: Iversen & Soskice 2006 (canvas) Response Paper 1 due
1.3.1	Democracy and Redistribution	
Unit 2	Simultaneous Strategy	
2.1.1	Normal Form Games	Read: Morrow pg.73-104
2.1.2	Mixed Strategy	Problem Set 2 due
2.1.3	Political Applications	
2.2.1	Hybrid Form Games	Read: Weingsat 1997 (canvas) Response Paper 2 due
2.3.2	Political Accountability	
Midterm Exam: Tuesday, November 10		

Course Outline cont.

Lecture	Content	Assignment
Unit 3	Sequential Strategy	
3.1.1	Extensive Form Games	Read: Morrow Ch.3 Problem Set 3 due
3.2.1	Probabilistic Outcomes	<i>Optional - Read: Morrow Ch.5</i>
3.2.2	Incomplete Information	Problem Set 4 due
3.3.1	Iterated Prisoner's Dilemma	Read: Milgrom, North, & Weingast 1990 (canvas) Response Paper 3 due
3.4.1	The Role of Institutions	Problem Set 5 due
Unit 4	Conditional Probabilities	
4.1.1	Bayes' Rule & Beliefs	Read: Morrow pg.161-170
4.1.2	Signaling Games - Separating Equilibria	Read: Morrow pg.170-187
4.1.3	Signaling Games - Pooling Equilibria	Problem Set 6 due
4.2.1	Applications	Read: Jacobi 2008 (canvas)
4.2.2	Wrapping Up Rationality	Response Paper 4 due
Final Exam: Friday, December 11		

University Policies

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).

Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See the [campus policy regarding religious observances](#) for full details.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

The University of Colorado Boulder (CU Boulder) is committed to fostering an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they

have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

Requirements for COVID-19

If you are coming to the CU Boulder campus for any reason, please be aware of the following policies.

In Case of Illness

If you are unable to complete work while quarantining or sick, please alert your faculty member as soon as possible so that arrangements can be made for you to complete the course.

If you are able to complete work while quarantining or sick, stay in touch with faculty in case this situation changes. Because of FERPA student privacy laws, you may, but are not required to, state the nature of your illness when notifying faculty.

If Coming to Campus

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements, and public health orders in place to reduce the risk of spreading infectious disease. Required safety measures at CU Boulder relevant to the classroom setting include:

- maintain 6-foot distancing when possible,
- wear a face covering in public indoor spaces and outdoors while on campus consistent with state and county health orders,
- clean local work area,
- practice hand hygiene,
- follow public health orders,
- if sick and you live off campus, do not come onto campus (unless instructed by a CU Healthcare professional), or if you live on-campus, please alert [CU Boulder Medical Services](#).

Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to [Student Conduct and Conflict Resolution](#). For more information, see the policies on [COVID-19 Health and Safety](#) and [classroom behavior](#) and the [Student Code of Conduct](#). If you require accommodation because a disability prevents you from fulfilling these safety measures, please see the Accommodation for Disabilities statement on this syllabus.

Before returning to campus, all students must complete the [COVID-19 Student Health and Expectations Course](#). Before coming on to campus each day, all students are required to complete a [Daily Health Form](#).

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home and complete the [Health Questionnaire and Illness Reporting Form](#) remotely.