

POLI/PWAD 287: STRATEGY & INTERNATIONAL RELATIONS
FALL 2022 · UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

INSTRUCTOR

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Office Hours: Thursdays 1:00–4:00PM

COURSE INFORMATION

Meeting Times: Tuesdays & Thursdays 9:30–10:45AM, Gardner 210
Course Website: <https://sakai.unc.edu/portal/site/poli287-f22>
Credit Hours: 3

COURSE DESCRIPTION

This course explores how we can use game theory to analyze strategic decision making in international relations. Why is it often hard for countries to cooperate? How can leaders make credible threats and promises to achieve their goals in international politics? When will bargaining break down and lead to war? To answer questions like these, we will first learn how to create and solve game theoretic models. We will then see how these models can be used to gain insights into different strategic situations in international relations. During the course, you will have an opportunity to develop their own game theoretic model to explain an event in international relations.

TARGET AUDIENCE

POLI/PWAD 287 is open to undergraduate students in any major. There are no prerequisites. In this course, we will be covering material on quantitative models in social science. This will require you to use logic skills, but no advanced mathematical background is required. I do, however, expect that you are familiar with basic algebra.

COURSE STRUCTURE

CLASS SESSIONS

Our class sessions will incorporate a mix of lectures and active learning opportunities. To get the most out of the course, it is important for you to come to class prepared and actively participate. Before each class, you should complete any assigned readings and quizzes for the day. In class, you are encouraged to ask questions at any point. If something is not clear to you, there's a good chance that someone else in the class is thinking the same thing! I will post all of the PowerPoint lectures on Sakai.

POLL EVERYWHERE AND MOBILE DEVICES

To facilitate class participation, we will utilize Poll Everywhere. If you have not already done so, you will need to register for a free student account at <https://poll.unc.edu>. With Poll Everywhere, you will use a web browser or mobile app to answer questions that I pose. Thus, you should make sure to bring a laptop or mobile device to each class. You are also welcome to use your laptop to take notes in class. However, to prevent distractions to you and other students, the use of cell phones is only permitted for clearly specified class activities (e.g., Poll Everywhere, in-class surveys).

READINGS

In this course, you will read several journal articles and book chapters that explore topics in game theory and strategic decision making in international relations. All of these readings will be available electronically through Sakai. For each required reading, you will need to complete a short quiz on Sakai before class. These quizzes will be incorporated into your Quiz and Participation grade.

In addition to the required readings, I will also post optional background reading related to the day's topic, including chapters from the optional books listed below. These readings are completely optional and are meant to provide a resource for students who want additional background beyond what I cover in class.

SAKAI

Sakai will be your primary source of information for the course. On Sakai, you will find a dedicated page for each unit of the course, which will provide links to readings, quizzes, homework and paper assignments, and lecture slides. I will make course announcements and updates via Sakai Messages, which will be also be copied to your UNC email address.

OFFICE HOURS AND EMAIL

I encourage you to take advantage of my office hours if you have any questions about the course at any point during the semester. I will be available to meet in person or on Zoom. If you want to meet in person, you can drop my office at any point during the office hours. If you want to meet via Zoom, please send me an email to coordinate a time to meet virtually during my office hours. You are also welcome to contact me with questions via email. I will try my best to respond within 24 hours on weekdays and 48-72 hours on weekends.

GRADING

Homework	20%	Paper	25%
Exams (Midterm & Final)	50%*	Quizzes/Participation	5%

*Exam with the higher grade will be worth 35%, while the exam with the lower grade will be worth 15%.

HOMEWORK

You will need to complete 6 game theory homework assignments. Due dates for these assignments can be found on the schedule below. You can collaborate with other students on these assignments, but your solutions must be your own. Copying homework solutions from another student will be considered a violation of the UNC Honor Code. Assignments will be posted on Sakai. Completed assignments should be submitted online as a PDF through Gradescope by 5:00PM on the due date. Late assignments will receive a 10% grade reduction for each day late. There is a two-day grace period for homework assignments (see below). Additional details and instructions can be found on Sakai.

EXAMS

There will be both a midterm and a final exam. Both exams will be held in class and will cover material from both the lectures and the course readings. The exams will test your knowledge of game theory as well as your ability to use the logic of strategic choice to understand concepts in international relations.

PAPER

You will need to write a short paper (1,500–2,500 words) in which you develop your own game theoretic model to help explain an event in international relations. Your paper is due on Friday, November 18. You should submit your paper online through Sakai. Late papers will be penalized 3 points for each day late. There is a two-day grace period for paper assignments (see below). Complete details on the paper assignment are available on Sakai.

ABSTRACT

To help you get started with the writing process, you will be required to submit a one-page abstract that summarizes your proposed paper topic and includes a list of 3 potential sources by Friday, October 28. I will provide general feedback on your abstract to help you as you move forward with writing the paper. I will not grade the abstract. However, if you do not submit an abstract, the grade on your final paper will be penalized 3 points. See below for information on grace period days for assignments.

PEER REVIEW

You will also be expected to participate a peer review session in which you provide constructive feedback to your classmates on the models they are developing for their papers. The peer review session will be held on Thursday, November 10.

QUIZZES AND PARTICIPATION

The quiz and participation grade will be based upon: (1) scores on online reading quizzes on Sakai and (2) completion of online surveys related to in-class simulations and activities.

QUIZZES

For eight of the class days, you will need to complete a quiz on Sakai related to the reading for that day. These quizzes will assess your basic understanding of the course material. You must complete the quiz by 9:30AM. Any quizzes submitted after this time will receive a score of 0. Each quiz is worth 3 points. *I will drop the lowest quiz grade when calculating the final course grade.* You can find a schedule of the quiz dates below and on Sakai.

PARTICIPATION SURVEYS

Your active participation is critical for the success of this this class. As part of this participation, you will need to complete seven online surveys related to in-class activities. Each survey will be worth 3 points and will only be graded for completion. *I will drop the lowest survey grade when calculating the final course grade.* You can find a schedule of these participation surveys below and on Sakai. Among our in-class activities are three simulations. These role-playing simulations will mimic actual international strategic situations, and they are aimed to allow you to gain hands-on experience with strategic decision making in international relations. Additional details on the simulations will be available on Sakai.

GRACE PERIODS AND LATE PENALTIES

You will have a two-day grace period for all homework and paper assignments. I will not start imposing any late penalties until after the grace period. For example, if a homework assignment is due on Friday, you would only receive a late penalty if you submit the assignment on the following Monday or later. Please note that there are no grace periods for reading quizzes.

GRADING SCALE

A	93.00–100.00	B	83.00–86.99	C	73.00–76.99	D	60.00–66.99
A–	90.00–92.99	B–	80.00–82.99	C–	70.00–72.99	F	0–59.99
B+	87.00–89.99	C+	77.00–79.99	D+	67.00–69.99		

Note: I will not round final grades.

IMPORTANT DATES

- Homework 1: August 26 (Fri)
- Homework 2: September 2 (Fri)
- Homework 3: September 9 (Fri)
- Homework 4: September 16 (Fri)
- Homework 5: September 23 (Fri)
- Midterm Exam: October 6 (Thurs)
- Homework 6: October 26 (Tues)
- Abstract for Paper: October 28 (Fri)
- Peer Review: November 10 (Thurs)
- Final Paper: November 18 (Fri)
- Final Exam: December 6 (Tues, 8AM)

COURSE MATERIALS

All required readings for the course are available on Sakai. **There is no required textbook.** The following books are **optional** if you want additional resources on game theory:

- Dixit, Avinash K., and Barry J. Nalebuff. *The Art of Strategy*. W.W. Norton.
 - A nontechnical introduction to game theory that discusses many of the topics that we will cover in the course
- Spaniel, William. *Game Theory 101*. CreateSpace.
 - A fairly inexpensive game theory textbook
 - Free videos: <http://gametheory101.com/courses/game-theory-101/>

COURSE POLICIES

ATTENDANCE

To succeed in this class, it is important for you to attend class. However, I understand that situations may arise that prevent you from attending class and recognize the need to be accommodating. For everyone's safety, you should self-assess before coming to class whether you are experiencing any symptoms for COVID-19. I will not be taking attendance. However, if you need to miss class for an extended period due to health reasons or another emergency situation, please be in contact so that we can work together to keep you on track with the course.

UNC HONOR CODE

You are bound by the Honor Code in taking exams and in written work. The Honor Code of the University is in effect at all times, and the submission of work signifies understanding and acceptance of those requirements. Plagiarism will not be tolerated. Please consult with me or visit honor.unc.edu if you have any questions about the Honor Code.

GRADE APPEAL PROCESS

If you feel you have been awarded an incorrect grade, please discuss with me. If we cannot resolve the issue, you may talk to our department chair or appeal the grade through a formal university process based on arithmetic/clerical error, arbitrariness, discrimination, harassment, or personal malice. To learn more, go to the Academic Advising website.

SYLLABUS CHANGES

I reserve the right to make changes to the syllabus, including due dates and test dates. These changes will be announced as early as possible.

COURSE GOALS AND LEARNING OBJECTIVES

This course will enable you to:

- Learn how to create and solve basic game theoretic models.
- Investigate how game theoretic models and rational choice analysis can be used to gain insights into strategic behavior in international relations.
- Apply you knowledge by developing a game theoretic model to explain an event in international relations.

As part of the General Education curriculum, this course will enable students to:

QUANTITATIVE REASONING

Students learn to comprehend and apply mathematical concepts in authentic contexts, developing tools for reasoning with data, logic, and quantitative methods.

QUESTIONS FOR STUDENTS

1. What is the role of mathematics in organizing and interpreting measurements of the world?
2. How can mathematical models and quantitative analysis be used to summarize or synthesize data into knowledge and predictions?
3. What methodology can we apply to validate or reject mathematical models or to express our degree of confidence in them?

LEARNING OUTCOMES

1. Summarize, interpret, and present quantitative data in mathematical forms, such as graphs, diagrams, tables, or mathematical text.
2. Develop or compute representations of data using mathematical forms or equations as models, and use statistical methods to assess their validity.
3. Make and evaluate important assumptions in the estimation, modeling, and analysis of data, and recognize the limitations of the results.
4. Apply mathematical concepts, data, procedures, and solutions to make judgments and draw conclusions.
5. Synthesize and present quantitative data to others to explain findings or to provide quantitative evidence in support of a position.

WAYS OF KNOWING

Students develop intellectual humility, learning to question assumptions, categories, and norms that structure their worldviews and to understand the sources and effects of biases. They learn, use, and distinguish strengths and weaknesses of one or more approach(es) to knowledge of the unfamiliar, such as: aesthetically, philosophically, linguistically, historically, or culturally remote forms of knowledge and worldmaking, or formal logic, scientific practice, and similar formalized approaches to countering bias and creating knowledge.

QUESTIONS FOR STUDENTS

1. What norms and expectations do I take for granted?
2. What categories and concepts frame my assumptions, experiences, and beliefs?
3. What practices of investigation or inquiry best challenge those assumptions and expectations?
4. How can I consider whether my beliefs might be wrong?

LEARNING OUTCOMES

1. Recognize and use one or more approach(es) to developing and validating knowledge of the unfamiliar world.
2. Evaluate ways that temporal, spatial, scientific, and philosophical categories structure knowledge.
3. Interrogate assumptions that underlie our own perceptions of the world.
4. Employ strategies to mitigate or adjust for preconceptions and biases.
5. Apply critical insights to understand patterns of experience and belief.

RECURRING CAPACITIES

- Pose problems and questions that require systematic thinking about evidence, argument and uncertainty;
- Consider its content in the context of human difference between and within societies; the full range of legitimate debate in its field; and/or change over time
- Require
 - Writing totaling at least 10 pages in length, or the intellectual equivalent.
 - Presenting material to the class, small groups, or the public through oral presentations, webpages, or other means that enable corroboration of fact and argument.
 - Collaborating in pairs or groups to learn, design, solve, create, build, research or similar.

CLASS SCHEDULE

[Q] Reading Quiz

[S] Participation Survey

UNIT 1: INTRODUCTION TO RATIONAL CHOICE

TUESDAY, AUGUST 16

- Class Topic: Course Introduction

THURSDAY, AUGUST 18

- Class Topic: Preferences and Utility
- Reading: Shepsle & Bonchek, "Rationality: The Model of Choice"

TUESDAY, AUGUST 23

- Class Topic: Expected Utility and Parameters

UNIT 2: SEQUENTIAL MOVES AND BACKWARD INDUCTION

THURSDAY, AUGUST 25

- Class Topic: Sequential Games

*****HOMEWORK 1 DUE: FRIDAY, AUGUST 26*****

TUESDAY, AUGUST 30

- Class Topic: Parameters in Sequential Games
- Activity: Creating Sequential Games [S]

UNIT 3: PRISONER'S DILEMMA AND INTERNATIONAL COOPERATION

THURSDAY, SEPTEMBER 1

- Class Topic: Prisoner's Dilemma

*****HOMEWORK 2 DUE: FRIDAY, SEPTEMBER 2*****

TUESDAY, SEPTEMBER 6

- **NO CLASS: WELLBEING DAY**

THURSDAY, SEPTEMBER 8

- Class Topic: Resolving the Prisoner's Dilemma
- Reading: Axelrod, "The Live-and-Let-Live System in Trench Warfare in WWI" [Q]
- Activity: "Isle of Ted" Simulation [S]

*****HOMEWORK 3 DUE: FRIDAY, SEPTEMBER 9*****

UNIT 4: NASH EQUILIBRIUM AND INTERNATIONAL COORDINATION

TUESDAY, SEPTEMBER 13

- Class Topic: Nash Equilibrium

THURSDAY, SEPTEMBER 15

- Class Topic: Multiple Equilibria and Focal Points
- Reading: Huth, Croco, & Appel, "Law and the Use of Force in World Politics" (pp. 17–23) [Q]
- Activity: Creating Simultaneous Games [S]

*****HOMEWORK 4 DUE: FRIDAY, SEPTEMBER 16*****

TUESDAY, SEPTEMBER 20

- Class Topic: Mixed Strategies

UNIT 5: STRATEGIC MOVES AND CREDIBILITY

THURSDAY, SEPTEMBER 22

- Class Topic: Strategic Moves

*****HOMEWORK 5 DUE: FRIDAY, SEPTEMBER 23*****

TUESDAY, SEPTEMBER 27

- Class Topic: Commitments and Civil Wars
- Reading: Walter, *Committing to Peace*, Ch. 2 [Q]

THURSDAY, SEPTEMBER 29

- Class Topic: Nuclear Deterrence
- Reading: Fuhrmann, "On Extended Nuclear Deterrence" [Q]

MIDTERM

TUESDAY, OCTOBER 4

- Class Topic: Midterm Review

THURSDAY, OCTOBER 6

- *****MIDTERM EXAM*****

UNIT 6: INFORMATION AND UNCERTAINTY

TUESDAY, OCTOBER 11

- Class Topic: Incomplete Information Games

THURSDAY, OCTOBER 13

- Class Topic: Incomplete Information Games
- Activity: Creating Incomplete Information Games [S]

TUESDAY, OCTOBER 18

- Class Topic: Private Information and Principal-Agent Relationships
- Reading: Kuperman, “Mitigating the Moral Hazard of Humanitarian Intervention” (pp. 219–226) [Q]

THURSDAY, OCTOBER 21

- **NO CLASS: FALL BREAK**

TUESDAY, OCTOBER 25

- Class Topic: Signaling and Screening
- Reading: Hyde, “Catch Us If You Can: Election Monitoring and International Norm Diffusion” (pp. 356-360) [Q]
- Reading: Weinstein, “Resources and the Information Problem in Rebel Recruitment” (pp. 598-607) [Q]

*****HOMEWORK 6 DUE: TUESDAY, OCTOBER 25*****

THURSDAY, OCTOBER 27

- Activity: Hostage-Crisis Simulation [S]

*****ABSTRACT FOR PAPER DUE: FRIDAY, OCTOBER 28*****

UNIT 7: INTERNATIONAL BARGAINING

TUESDAY, NOVEMBER 1

- Class Topic: Bargaining Models

THURSDAY, NOVEMBER 3

- *NO CLASS: PEACE SCIENCE CONFERENCE*

TUESDAY, NOVEMBER 8

- Class Topic: Bargaining and War
- Fearon, “Rationalist Explanations for War” [Q]

THURSDAY, NOVEMBER 10

- Class Topic: Bargaining and War
- Werner & Yuen, “Making and Keeping Peace” (pp. 262–272) [Q]
- Activity: Peer Review [S]

TUESDAY, NOVEMBER 15 & THURSDAY, NOVEMBER 17

- Activity: Crisis Bargaining Simulation [S]

*****PAPER DUE: FRIDAY, NOVEMBER 18*****

COURSE WRAP-UP

TUESDAY, NOVEMBER 22

- Class Topic: Game Theory in IR Research
- Reading: Gent, Crescenzi, Menninga, & Reid, “The Reputation Trap of NGO Accountability”

THURSDAY, NOVEMBER 24

- *NO CLASS: THANKSGIVING*

TUESDAY, NOVEMBER 29

- Class Topic: Final Exam Review

*****FINAL EXAM: TUESDAY, DECEMBER 6 AT 8:00AM*****

SERVICES AND STUDENT SUPPORT

ACCESSIBILITY RESOURCES AND SERVICES

The University facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email ars@unc.edu.

COUNSELING AND PSYCHOLOGICAL SERVICES

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more

TITLE IX RESOURCES

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the Equal Opportunity and Compliance Office at <https://eoc.unc.edu/report-an-incident/>. Please contact the University's Title IX Coordinator (Elizabeth Hall, interim: titleixcoordinator@unc.edu), Report and Response Coordinators in the EOC Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

POLICY ON NONDISCRIMINATION

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities and qualifications. Consistent with this principle and applicable laws, the University's Policy Statement on Non-Discrimination offers access to its educational programs and activities as well as employment terms and conditions without respect to race, color, gender, national origin, age, religion, creed, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression. Such a policy ensures that only relevant factors are considered and that equitable and consistent standards of conduct and performance are applied. If you are experiencing harassment or discrimination, you can seek assistance and file a report through the Report and Response Coordinators (see contact info at safe.unc.edu) or the Equal Opportunity and Compliance Office, or online to the EOC at <https://eoc.unc.edu/report-an-incident/>.