

# **POLI/PWAD 287: STRATEGY & INTERNATIONAL RELATIONS**

SPRING 2024 · UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

## **INSTRUCTOR**

Stephen Gent  
Office: Hamilton 364  
Email: gent@unc.edu  
Office Hours: Tuesdays & Thursdays 10:00–11:30AM

## **COURSE INFORMATION**

Meeting Times: Tuesdays & Thursdays 12:30–1:45AM, Gardner 210  
Instructional Mode: In-Person (No remote option)  
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.

## **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 can be used to gain insights into strategic behavior in international relations.
- Apply your knowledge by developing a 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 Canvas.

### POLL EVERYWHERE AND MOBILE DEVICES

To facilitate class participation, we will sometimes utilize Poll Everywhere. If you have not already done so, you should 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 AND COURSE MATERIALS

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 Canvas. For each reading, you will need to complete a short quiz on Canvas before class. **There is no textbook for this course.**

### CANVAS

Canvas will be your primary source of information for the course. On Canvas, you will find a dedicated page in the Modules for each day of the semester, which will provide links to any readings, quizzes, class activities, homework assignments, and lecture slides. I will make course announcements and updates via Canvas.

### OFFICE HOURS AND EMAIL

I encourage you to take advantage of my office hours if you have any questions or would like to chat at any point during the semester. You are also welcome to contact me with questions via email or the Canvas inbox. I will try my best to respond within 24 hours on weekdays and 48-72 hours on weekends.

## GRADING

Homework	15%	Reading Quizzes	5%
Model Assignment	25%	Participation Assignments	5%
Exams (Midterm & Final)	50%*		

## 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 Canvas. Completed assignments should be submitted online as a PDF through Gradescope. Each assignment is worth 20 points. Late assignments will receive a 2-point grade reduction for each day late. ***I will drop the lowest homework grade when calculating the final course grade.*** Additional details and instructions can be found on Canvas.

## MODEL ASSIGNMENT

You will need to complete an assignment in which you develop your own game theoretic model to help explain a recent event in international relations. This model assignment is worth 50 points and is due on Friday, April 26. Late assignments will receive a 2-point grade reduction for each day late. Complete details on the model assignment will be available on Canvas.

## EXAMS

There will be a midterm exam and a final exam. Both exams will be held in class and will cover material from 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. When calculating the final course grade, the exam with the higher grade will be worth 2/3 of the course exam grade, while the exam with the lower grade will be worth 1/3 of the course exam grade.

## READING QUIZZES

For eight of the class days, you will need to complete a quiz on Canvas related to the reading for that day. These quizzes will assess your basic understanding of the course material. You must complete the quiz by 12:30PM. 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 Canvas.

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\*The exam with the higher grade will be worth 2/3 of the exam component, while the exam with the lower grade will be worth one-third of the exam component.

### PARTICIPATION ASSIGNMENTS

Your active participation is critical for the success of this this class. As part of this participation, you will need to complete seven assignments related to in-class activities. Each assignment will only be graded for completion. You must be in class to complete the assignment, unless you have a University approved absence. ***To accommodate students who may need to miss a class for other reasons, I will drop the two lowest participation assignment grades.*** You can find a schedule of these participation assignments below and on Canvas. Among our in-class activities are two simulations. These role-playing simulations 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 Canvas.

### GRADING SCALE

A	94.00–100.00	B	83.00–86.99	C	73.00–76.99	D	60.00–66.99
A–	90.00–93.99	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

	HW ASSIGNMENT	READING QUIZ	PARTICIPATION ACTIVITY
Week 1			
Week 2			January 18 (Thurs)
Week 3	January 23 (Tues)		January 25 (Thurs)
Week 4	January 30 (Tues)	February 1 (Thurs)	
Week 5	February 6 (Tues)	February 8 (Thurs)	February 8 (Thurs)
Week 6	February 15 (Thurs)		
Week 7	February 23 (Fri)		February 22 (Thurs)
Week 8			
Week 9			March 7 (Thurs)
<i>Spring Break</i>			
Week 10	March 19 (Tues)	March 19/21 (Tues/Thurs)	
Week 11			
Week 12		April 2 (Tues)	
Week 13		April 9 (Tues)	April 11 (Thurs)
Week 14		April 16/18 (Tues/Thurs)	
Week 15	April 26 (Fri)		April 23 (Tues)
Week 16			

### EXAMS

- Midterm Exam: February 29 (Thurs)
- Final Exam: May 6 (Mon, 4PM)

## COURSE POLICIES

### ATTENDANCE

University Policy: As stated in the University's Class Attendance Policy, no right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences:

1. Authorized University activities: University Approved Absence Office (UAAO) website provides information related to University Approved Absences
2. Disability/religious observance/pregnancy, as required by law and approved by Accessibility Resources and Service and/or the Equal Opportunity and Compliance Office (EOC)
3. Significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the Equal Opportunity and Compliance Office (EOC).

To succeed in this course, it is important for you to attend. However, I understand that situations may arise that prevent you from attending class. To accommodate this, I will drop the lowest participation assignment grade. 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.

### UNC HONOR CODE

All students are expected to follow the guidelines of the UNC honor code. In particular, students are expected to refrain from "lying, cheating, or stealing" in the academic context. If you are unsure about which actions violate that honor code, please consult [honor.unc.edu](http://honor.unc.edu)

### ARTIFICIAL INTELLIGENCE (AI) USE POLICY

The following uses of generative AI tools are permitted for the **model assignment** in this course: topic selection, brainstorming and idea generation, outlining and planning, revising, and polishing. If you use AI, you must account for and document your use.

### 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. These changes will be announced as early as possible.

#### ACCESSIBILITY RESOURCES AND SERVICE

Accessibility Resources and Service (ARS – [ars@unc.edu](mailto:ars@unc.edu)) receives requests for accommodations, and through the Student and Applicant Accommodations Policy determines eligibility and identifies reasonable accommodations for students with disabilities and/or chronic medical conditions to mitigate or remove the barriers experienced in accessing University courses, programs and activities. ARS also offers its Testing Center resources to students and instructors to facilitate the implementation of testing accommodations.

#### COUNSELING AND PSYCHOLOGICAL SERVICES

UNC-Chapel Hill is strongly committed to addressing the mental health needs of a diverse student body. The Heels Care Network website is a place to access the many mental health resources at Carolina. CAPS is the primary mental health provider for students, offering timely access to consultation and connection to clinically appropriate services. Go to the CAPS website or visit their facilities on the third floor of the Campus Health building for an initial evaluation to learn more. Students can also call CAPS 24/7 at 919-966-3658 for immediate assistance.

#### TITLE IX AND RELATED 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 EOC or by contacting the University's Title IX Coordinator (Elizabeth Hall) or the (Report and Response Coordinators) in the Equal Opportunity and Compliance Office. Confidential resources include Counseling and Psychological Services and the (Gender Violence Services Coordinators). Additional resources are available at [safe.unc.edu](http://safe.unc.edu).

## GENERAL EDUCATION LEARNING OBJECTIVES

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

[P] Participation Activity

### UNIT 1: INTRODUCTION TO RATIONAL CHOICE

THURSDAY, JANUARY 11

- Class Topic: Course Introduction

TUESDAY, JANUARY 16

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

THURSDAY, JANUARY 18

- Class Topic: Expected Utility and Parameters
- Activity: Expected Utility and Cutpoints [P]

**\*\*\*HOMEWORK 1 DUE: TUESDAY, JANUARY 23\*\*\***

### UNIT 2: SEQUENTIAL MOVES AND BACKWARD INDUCTION

TUESDAY, JANUARY 23

- Class Topic: Sequential Games

THURSDAY, JANUARY 25

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

**\*\*\*HOMEWORK 2 DUE: TUESDAY, JANUARY 30\*\*\***

### UNIT 3: THE PRISONER’S DILEMMA AND INTERNATIONAL COOPERATION

TUESDAY, JANUARY 30

- Class Topic: The Prisoner’s Dilemma

THURSDAY, FEBRUARY 1

- Class Topic: Resolving the Prisoner’s Dilemma
- Reading: Axelrod, “The Live-and-Let-Live System in Trench Warfare in WWI” [Q]

**\*\*\*HOMEWORK 3 DUE: TUESDAY, FEBRUARY 6\*\*\***

UNIT 4: NASH EQUILIBRIUM AND INTERNATIONAL COORDINATION

TUESDAY, FEBRUARY 6

- Class Topic: Nash Equilibrium

THURSDAY, FEBRUARY 8

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

TUESDAY, FEBRUARY 13

- **NO CLASS: WELLBEING DAY**

**\*\*\*HOMEWORK 4 DUE: THURSDAY, FEBRUARY 15\*\*\***

THURSDAY, FEBRUARY 15

- **NO CLASS**

TUESDAY, FEBRUARY 20

- Class Topic: Mixed Strategies

THURSDAY, FEBRUARY 22

- Activity: “Isle of Ted” Simulation [P]

**\*\*\*HOMEWORK 5 DUE: FRIDAY, FEBRUARY 23\*\*\***

MIDTERM

TUESDAY, FEBRUARY 27

- Class Topic: Midterm Review

THURSDAY, FEBRUARY 29

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

UNIT 5: INFORMATION AND UNCERTAINTY

TUESDAY, MARCH 5

- Class Topic: Incomplete Information Games

THURSDAY, MARCH 7

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

TUESDAY, MARCH 12 &amp; THURSDAY, MARCH 14

- **NO CLASS: SPRING BREAK**

**\*\*\*HOMEWORK 6 DUE: TUESDAY, MARCH 19\*\*\***

TUESDAY, MARCH 19

- Class Topic: Private Information and Principal-Agent Relationships
- Reading: Gent, Crescenzi, Menninga, & Reid, “The Reputation Trap of NGO Accountability” (pp. 426–429, 432–437) [Q]

THURSDAY, MARCH 21

- Class Topic: Signaling and Screening
- Reading: Hyde, “Catch Us If You Can: Election Monitoring and International Norm Diffusion” (pp. 356–360) [Q]

UNIT 6: STRATEGIC MOVES AND CREDIBILITY

TUESDAY, MARCH 26

- Class Topic: Strategic Moves

THURSDAY, MARCH 28

- **NO CLASS: WELLBEING DAY**

TUESDAY, APRIL 2

- Class Topic: Commitments and Peace Agreements
- Reading: Matanock, “Bullets for Ballots: Electoral Participation Provisions and Enduring Peace after Civil Conflict.” (pp. 93-109) [Q]

THURSDAY, APRIL 4

- **NO CLASS: ISA CONFERENCE**

TUESDAY, APRIL 9

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

UNIT 7: INTERNATIONAL BARGAINING

THURSDAY, APRIL 11

- Class Topic: Bargaining Models
- Activity: Bargaining [P]

TUESDAY, APRIL 16

- Class Topic: Bargaining and War (Part 1)
- Fearon, "Rationalist Explanations for War" [Q]

THURSDAY, APRIL 18

- Class Topic: Bargaining and War (Part 2)
- Werner & Yuen, "Making and Keeping Peace" (pp. 262–272) [Q]

TUESDAY, APRIL 23

- Activity: Crisis Bargaining Simulation [P]

COURSE WRAP-UP

THURSDAY, APRIL 25

- Class Topic: Game Theory and International Relations

**\*\*\*MODEL ASSIGNMENT DUE: FRIDAY, APRIL 26\*\*\***

TUESDAY, APRIL 30

- Class Topic: Final Exam Review

**\*\*\*FINAL EXAM: MONDAY, MAY 6 AT 4:00PM\*\*\***