MBA 211: Game Theory
Spring 2023
Instructor: Gregory La Blanc

The Basics

Instructor Office F494

Instructor Office Hrs: by appointment

Instructor email: lablanc@haas.berkeley.edu

Class Time: Wednesdays, 6:00-9:00 (with 15 minute break)

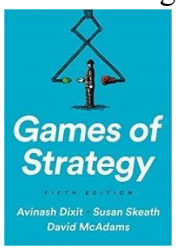
Overview: This course is a basic introduction to game theory and strategic thinking. Although much of the content of this course will be abstract and involve stylized modeling, the emphasis will be on the practical applications of game theory to business.

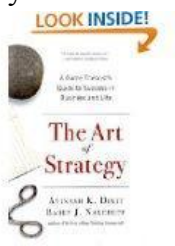
Groups: You should be asked to form groups in class that can range from 2-4. You will often be grouped with the same people but group memberships will change from time to time. You can form groups of 3-5 for the final project and presentation.

Class Rep The class must choose a class rep who will communicate with me about class concerns. Please do not hesitate to contact him or her with any comments, criticisms, ideas for improving the class, and feedback about what is working or not working.

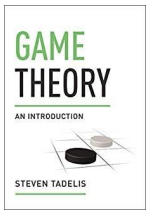
Course Requirements:

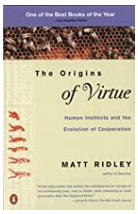
Texts: Games of Strategy, by A. Dixit, S. Skeath, and D. McAdams (you can substitute earlier editions)
Art of Strategy, by A. Dixit and B. Nalebuff

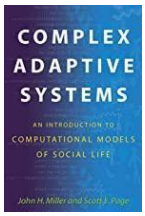


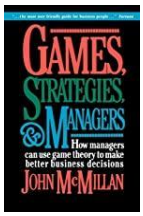


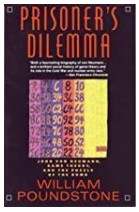
Recommended Books:

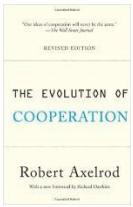


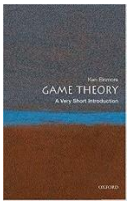


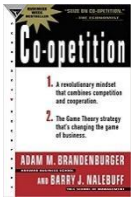




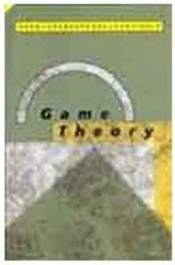


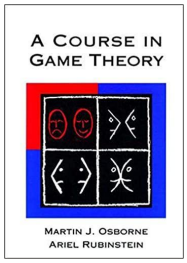


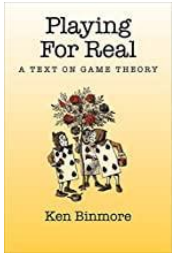


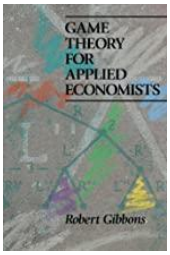


For more advanced Students:









Materials: Additional Materials will be made available through bSpace including:
*lecture notes
*assignments
*handouts

Grading: Class Participation 10%

Regular attendance in class If you cannot attend for any reason, I ask that you contact me to let me know.

Much of the learning in the class comes from your active contribution, so reading and thinking before class and actively conversing during class are key ingredients to a successful learning experience. In order to be prepared to participate effectively, you should read carefully any in-class exercises prior to coming to class. Reading should be active: as you read, think about your strategy, what assumptions you are making in deciding on this strategy. Also try to think about how others in the class might develop their strategies. You should be prepared to defend your actions in the class using logic, evidence, and calculation.

Homeworks 30%

To help you to gain ease in applying the tools of game theoretic analysis to the situations you will participate in during the class, there will be almost weekly problem sets and case write-ups.

Student Final Projects 30%

The final project, which is the "capstone" component to the class, asks you to find an issue or situation of strategic relevance where you can bring to bear a variety of ideas and techniques developed during the course. Again, you are free to work in groups.

Your grade for the project is determined by a 5-10 page write-up of your analysis. The page limit is based on a double-spaced paper exclusive of any tables or exhibits you wish to include.

Final 30%

The final will cover all of the material in the class.

Ethics: While I encourage you to seek knowledge wherever you find it, do not take unethical shortcuts in preparing your work..

Course Schedule:

This schedule is provisional. Check back frequently for updates and revisions. I will be refining the reading list as the semester progresses.

Those readings preceded by an asterisk (*) are required reading

Part I:

W JAN 18 Lecture 1: Introduction to Game Theory; Games with Sequential Moves

Reading: Games of Strategy, Chapters 1- 3
Experiment: Beauty Contest
Pick a Number
Adding Numbers
Ultimatum Game
Centipede Game

W JAN 25 Lecture 2: Simultaneous-Move Games
Reading: Games of Strategy, Chapter 4-5
Assignment: Problem Set # 1
Experiment: Right of First Refusal
Oil Well Game
Battle of the Bismarck Sea Game
Matching Game
Divide a Dollar (version 1-2)
Stag and Hare Game
Divide the Dollar (versions 3-4)
Bertrand Game
Cournot Game
Stackleberg Game

W FEB 1 Lecture 3: More Complicated Games
Reading: Games of Strategy, Chapter 6
Assignment: Problem Set # 2
Experiment: NBA Free Agency
Escrow Game
Judo Economics Game

W FEB 8 Lecture 4: Repeat Play
Reading: Games of Strategy, Chapters 11
Case: General Electric vs Westinghouse
Assignment: Case Writeup

W	FEB 15	Lecture5: Mixed Strategies
	Reading:	Games of Strategy, Chapters 7
	Experiment:	Rock Paper Scissors
	Assignment:	Problem Set # 3
W	FEB 22	**NO CLASS**:
W	MAR 1	**NO CLASS**:
	Assignment:	OPEC memo
W	MAR 8	Lecture 6: Information Games and Auctions
	Reading:	Games of Strategy, Chapters 8 and 17
	Experiment:	Auctioning the Spectrum
		Valuing Education Game
		Hiring Wokers (information cascade) Game
W	MAR 15	Lecture 7: Commitment
	Reading:	Games of Strategy, Chapters 10 and 14
	Case:	Progressive Insurance (for discussion)
W	MAR 22:	Lecture 8: Evolutionary Game Theory
	Reading:	Games of Strategy, Chapter 11 and 12
		Assignment: Problem Set # 4
W	MAR 29:	**NO CLASS SPRING BREAK**
M	APR 5	Lecture 9: Mechanism Design and Voting
	Reading:	Games of Strategy, Chapters 13 and 15
	Assignment:	Problem Set # 5
W	APR 12	Lecture 10: Agency Theory and Corporate Finance
W	APR 19	**PRESENTATIONS**
W	APR 26	**FINAL EXAM**