

## ECON 212: Game Theory (Fall Term, 2019)

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INSTRUCTOR	Annie Liang Office: 501 Perelman Email: anliang@upenn.edu Office Hours: Mondays 4-5PM
TEACHING ASSISTANT	Cuimin Ba Office: 500 Perelman Email: cuiminba@sas.upenn.edu Office Hours: Thursdays 2-4PM
CLASS	TR 10:30am-12pm Room: GLAB 101  There will be <b>no class</b> on <b>Sept. 17</b> or <b>Nov. 26</b> (the lecture right before Thanksgiving Break). Please use this time to get caught up if you are behind!
TEXTS	<i>Strategy: An Introduction to Game Theory</i> , Watson, J. (3rd Edition)
PREREQUISITES	Econ 101 and Math 114/115 in a previous semester.
LECTURE NOTES	Posted on Canvas.
PROBLEM SETS	There are six problem sets, and these are due on: <ul style="list-style-type: none"><li>• Problem Set 1: Friday, 09/06</li><li>• Problem Set 2: Friday, 09/20</li><li>• Problem Set 3: Friday, 10/4</li><li>• Problem Set 4: Friday, 10/25</li><li>• Problem Set 5: Friday, 11/15</li><li>• Problem Set 6: Friday, 12/6</li></ul> No late submissions are allowed, but your lowest problem set score will be dropped when computing your course grade.
GRADING	There will be <b>two midterms</b> and one <b>final exam</b> . The final exam is worth 35% of the total grade, each midterm is worth 20%, and each problem set is worth 5%.  Students have two weeks from the day in which examinations are returned to report errors in grading and/or to request that problems be re-graded. If a student submits his/her exam for re-grading, then the student's entire exam will be re-graded (with no guarantee of a higher total score).
EXAM DATES	<b>Midterms:</b> Oct. 1 and Nov. 5 (in class). The lectures before the midterms (Sept. 26 and Oct. 31) will be reviews. <b>Final Exam:</b> Tentative date is Dec. 12.

TOPICS AND  
SCHEDULE

There may be small adjustments made to this schedule during the semester. Please check on Canvas for the most recent version.

Lecture 1: Extensive form, strategies.

- Required reading: Watson, Chapters 1-3

Lecture 2: Normal form, beliefs.

- Required reading: Watson, Chapters 3-4

Lecture 3-4: Best Response, Rationalizability

- Required reading: Watson, Chapters 6-8

Lecture 5-6: Mixed Strategies, Nash Equilibrium

- Required reading: Watson, Chapters 9-12

Lecture 7-8: Backwards Induction, Subgame-Perfection

- Required reading: Watson, Chapters 14-15

Lectures 9-11: Repeated Games

- Required reading: Watson, Chapters 22-23

Lectures 12-13: Bayesian Equilibrium

- Required reading: Watson, Chapters 24 and 26

Lectures 14-15: Auctions

- Required reading: Watson, Chapters 27

Lectures 16-18: Perfect Bayesian Equilibrium, Signaling Games

- Required reading: Watson, Chapters 28-29

Lecture 19: Extra Topic 1—Knowledge

Lecture 20: Extra Topic 2—Matching