## Course Information

Instructor: Leshui He
Email: lhe@bates.edu
Office Hours: T 12:30PM-1:30PM & by appointment
zoom link: https://bates.zoom.us/j/97280821129

Class Meeting: MWF 12:30PM-2:15PM
zoom link: https://bates.zoom.us/j/181922093

Recommended Reading: Gibbons, ***Game Theory for Applied Economists***
Dixit, Reiley and Skeath, ***Games of Strategy***, 3rd edition
Dixit and Nalebuff, ***Thinking Strategically***
Brandenburger and Nalebuff, ***Co-Opetition***

## Learning Objectives

This course is organized around the topics of economics of strategies between and within firms. Upon completion of this course, you will be familiar with many topics about the applications of game theory under the background of business practices.

The learning objectives of this course are to

- introduce applied game theoretical methods in economics;
- provide insights regarding deriving empirical hypothesis;
- practice and improve ability to analyze economic problems through quantitative methods;
- deepen understanding of microeconomic theory in policy and business where interactions among agents are important;
- provide opportunities to inspire research ideas as potential thesis topic.

## Grading

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|---|---|
| Class Participation | 10% |
| Perusall Assignments | 40% |
| Projects (3 projects; can choose group project if senior) | 50% |

Note: Late submission of each assignment will be given 50% penalty from the assignment.

## Makeup Exam Policy

Exams may be given early to students for religious observance or college athletic team competition, but only with valid and documented conflicts.

I don't offer "extra credit" for doing extra assignments. And, yes, I do "curve" results in that I do not have fixed cutoff points (90, 80, 70, etc.) for particular grades.

## Format, Procedures, Classroom Etiquette

Attendance to lecture is by default required and is very important for succeeding in this course. Calculator is allowed for exams, cellphones are not allowed. As a courtesy, please mute your cellphones during the lectures.

## Academic Integrity

Academic integrity is fundamental to learning, scholarship, and indeed all dimensions of academic life. At its simplest, this means that the work you submit must be your own unless collaboration is specifically allowed, that you use only those resources allowed; that you express yourself in your own words unless you are quoting, and that you properly acknowledge and cite the ideas, information, and other work that you used or that contributed to your understanding.

Your academic work is governed by The Bates College Statement on Academic Integrity, found here at:
http://www.bates.edu/student-affairs/student-conduct/academic-integrity-policy/,
and by any additional standards I set in this syllabus or in individual assignments. The Statement on Academic Integrity provides a fuller discussion of academic integrity and definitions of plagiarism, misuse of sources, and cheating. You are responsible for reading the Statement carefully and abiding by its terms.

In this course you are not permitted to give or receive help of any kind during examinations. Included in this prohibition is the use of cell phones for any purpose during an examination. Turn it off, put it away and keep it away for the duration of the examination. If I see you consulting a cell phone, I will assume you are using it to receive help on the examination.

Outside of the examinations, I encourage you, as I stated previously, to work together in study groups and help each other understand the concepts. While figuring out the problem sets and labs as a group is also permissible, I expect that the final analysis and write up will be your own work, not a set of answers copied from the group. Violations of academic integrity are serious and can result in severe consequences at both the course and college levels. Depending on the circumstances of the violation, I will assign a failing grade for the examination and/or the course, and/or impose other consequences at my sole discretion; in addition, I will refer the matter to the Dean of Students for possible institutional action. Procedures for suspected violations are explained here: http://www.bates.edu/

student-affairs/files/2015/02/Student-Info-Sheet-Academic-Integrity-2013-2014.pdf.

If you have any questions or concerns about what is expected or permissible in this course or about academic integrity in general, please contact me.

## Accessibility

It is my goal to create a learning experience that is as accessible as possible. If you anticipate any issues related to the format, materials, or requirements of this course, please meet with me outside of class so we can explore potential options.

Students with disabilities may also wish to work with the Office of Accessible Education and Student Support to discuss a range of options to removing barriers in this course, including official accommodations. Please visit their website for contact and additional information: https://www.bates.edu/accessible-education/. If you have already been approved for accommodations through the Office of Accessible Education, please meet with me so we can develop an implementation plan together.

If you are requesting an accommodation due to an officially documented disability, you are reminded that it is the responsibility of the student to arrange for such accommodations with the faculty and the learning services (if required) well in advance of any activity where it may be needed.

## Tentative Schedule

| MONDAY | |
|---|---|
| Apr 5th<br>Simultaneous Games with Complete Information, Gibbons 1.1-1.3 | **1** |
| 12th<br>Sequential-Move Games and Commitment, Gibbons 2.1-2.2 | **2** |
| 19th<br>Crime and Punishment: Repeated Interaction, Gibbons 2.3<br>**Project 1** | **3** |
| 26th<br>Applications of dynamic games<br>**No class on Apr. 28th**<br>Apr. 30 — **Last day for withdrawal** from module D courses | **4** |
| May 3rd<br>Games of Incomplete Information, Simultaneous Move, Gibbons 3.1<br>**Project 2** | **5** |
| 10th<br>Games of Incomplete Information, Signaling Game, Gibbons 4.1-4.2 | **6** |
| 17th<br>Discussions of applied models with game theory applications<br>**Project 3** | **7** |