

ECON 414: Game Theory (Section 0201)
Fall 2025

COURSE SYLLABUS

Professor: Peter Coughlin
Undergraduate TA: Armaan Mokha

Lectures:
MWF, 1:00pm - 1:50pm (TYD 2106)

Course Description

The course focuses on situations where the individual outcomes of several decision makers are jointly determined. Students will learn about methods that have been developed for analyzing such situations. Students will also see applications of the methods to some specific models.

I. Pre-requisites

One course with a minimum grade of C- from {ECON 306, ECON 326} and one course with a minimum grade of C- from [ECON 230, BMGT 230, ECON 321, STAT400].

II. Textbook & Topics

The textbook for the course is:

Joseph Harrington, Games, Strategies and Decision Making, 2nd edition, Worth Publishers

[The textbook can be purchased or rented through the University Book Center.
It can also be borrowed at the Reserve Desk in the McKeldin Library.]

Topics:

Introduction to Strategic Reasoning; Building a Model of a Strategic Situation; Solving a Game When Rationality Is Common Knowledge; Nash Equilibrium in Discrete Games with Two or Three Players; Nash Equilibrium in Discrete n-Player Games; Nash Equilibria in Continuous Games; Randomized Strategies; Solving Sequential Games

III. Grades

There will be three exams.

A student's course grade will be based entirely on his or her average on the exams.
Let x be a student's average. His or her course grade will be assigned as follows:

A+ if $100 \geq x \geq 97$	A if $97 > x \geq 93$	A- if $93 > x \geq 90$
B+ if $90 > x \geq 87$	B if $87 > x \geq 83$	B- if $83 > x \geq 80$
C+ if $80 > x \geq 77$	C if $77 > x \geq 73$	C- if $73 > x \geq 70$
D+ if $70 > x \geq 67$	D if $67 > x \geq 63$	D- if $63 > x \geq 60$
F if $x < 60$		

NO extra credit will be available in this course.

IV. Exams

The days and times for the exams will be posted at the course website.

If a student with a documented physical or learning disability requires special accommodation for a exam, appropriate accommodations can be made. The deadline for making such arrangements for a particular exam is one week before the exam. More specifically, documentation from ADS (Accessibility and Disability Service) must be provided one week before the exam.

A student will be eligible to take a makeup exam only if the student (1) misses the original exam because of one of for a legitimate reason and (2) within one week of the missed exam furnishes documentary support for the assertion that it was missed for a legitimate reason.

If a student misses a exam and the subsequent makeup exam (and can document that each one was missed for a legitimate reason), the weight that would have been given to that exam will be added to the weight used for the student's other exams.

VII. University Policies

Policies relevant to ALL undergraduate courses are available at:
<https://www.ugst.umd.edu/courserelatedpolicies.html>

Topics addressed include academic integrity, student and instructor conduct, accessibility and accommodations, attendance and excused absences, grades and appeals, copyright and intellectual property. Every student is expected to understand and uphold these policies which elaborate your rights and responsibilities; ignorance of the policies is not an acceptable excuse. Students will also find on this page information about valuable resources to support academic success in this course, as well as overall health and well-being