

**ECON 407-01, Game Theory, Spring 2009**

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**Economics 407  
Spring 2009  
McKinney**

**Class:** Tu Th 3:30-4:45 in Buckman 110

**Office:** Buckman 321

**Phone:** 843-3566

**Email:** mckinneyn@rhodes.edu

**Office Hours:** Monday 8:00-9:30 am  
Tuesday 9:30-10:30 am  
Wednesday 8:00-9:30 am

Additional hours will be announced around exam times. Feel free to stop by anytime my door is open.

Monday and Wednesday usually are not good because I have meetings with my senior seminar students. The office hours above are set aside for this class and Econ 290. If you see me talking to a senior about their senior seminar project during office hours, make sure I know you are waiting for me and I will let you cut ahead of them.

**Attendance:** I will not have time to take roll on a regular basis, but don't use this as an excuse to skip class. Keep in mind that grades are highly correlated with attendance. We will cover a lot of material in this class every day. I encourage you to take notes in class, then review your notes and re-work sample problems after class. If you wait until the night before an exam to study, you may be able to memorize the material, but you will have trouble applying it. There are no "bonus points" for simply showing up to class and not paying attention. Do not come to class if you plan to sleep or work on other assignments.

**Text:** Text: *Games, Strategies, and Decision Making* by Joseph E. Harrington Jr. Use this text to supplement your notes. It is filled with good examples and applications, but it does not cover everything I want to cover and it doesn't always cover in the same order.

**Exams:** The following three exams make up 70% of your final grade. The weight of each exam is given in parenthesis.

Exam 1 (20%): February 19<sup>th</sup>  
Exam 2 (20%): April 7<sup>th</sup>  
Final Exam (30%): May 4<sup>th</sup> at 8:30am

As long as you let me know at least 1 week in advance you can take any of

my tests early. If you have to be away for a school approved function, you must take the test early. I do not give late tests or make-up exams. No one will be allowed to take a test after the scheduled time. If something happens and you miss a test I may allow you to take an extended final exam that will cover the material you missed. I will look at medical documentation if you are sick and I will discuss other issues with the Dean of Students' Office, but I will make the final decision on whether or not you take the extended final or receive a zero.

You must show your work on the exams. I will not give any partial credit if you just turn in answers. If I can't tell how an answer was derived, I will mark it wrong.

Most of the material in this class builds on itself so the exams are all "cumulative." The honor code applies to the exams as well as all other assignments in this class.

**Homework:**

Homework will make up the final 30% of your grade. I will assign homework problems each week. Sometimes I will collect it and sometimes I will not. When I collect the homework, I will only grade a subset of the problems. Some of the time the selection will be random, but occasionally, I will intentionally pick certain problems to grade. Either way, you will not know which problems I will grade until you turn them in to me; so you still have every incentive to work every problem. Homework will usually be due on Thursdays. I will put answer keys on the network after I collect the assignments.

Feel free to work with other people, but don't simply copy their work. Copying someone else's work is a violation of the honor code. Copying an old answer key is also a violation of the honor code. You must show your work. I will not give any partial credit if you just turn in answers.

**Grading Scale:**

I will round your grade to the nearest percentage and assign grades according to the scale below:

	<b>A</b> 93% and above	<b>A-</b> 90%-92%
<b>B+</b> 87% to 89%	<b>B</b> 83% to 86%	<b>B-</b> 80% to 82%
<b>C+</b> 77% to 79%	<b>C</b> 73% to 76%	<b>C-</b> 70% to 72%
<b>D+</b> 67% to 69%	<b>D</b> 63% to 66%	<b>D-</b> 60% to 62%
<b>F</b> below 60%		

I do not give any extra credit assignments.

**Course  
Outline:**

- I. Extensive form games**
- II. Normal form games**
- III. Mixed strategies and expected payoffs**
- IV. Dominance**
- V. Iterated dominance**
- VI. Pure Strategy Nash equilibrium**
- VII. Mixed strategy Nash equilibrium**
- VIII. Backward induction and subgame perfect equilibrium**
- IX. Bargaining & negotiation**
- X. Repeated games**
- XI. Incomplete information**
- XII. Special topics:**
  - **Advanced applications**
  - **Experimental economics**
  - **Parlor games**

This is simply an outline. Some topics may get pushed down (or up). I will let you know exactly what is covered on each test when the time comes. Use the text book to supplement your notes. Keep in mind that the text doesn't necessarily cover all the same topics in the same order that I will in my lectures.

**Class Goals:**

By the end of the class you should understand all the material outlined above. You should be able to take real world scenarios and use the tools from this class to build game theoretical models. You should be well prepared to take graduate courses in Game Theory, Experimental, and Behavioral Economics.