

COURSE SYLLABUS

August 2011

Course Description: This course is an introduction to the theory of games, a set of tools used to analyze the strategic interactions among rational decision-makers. We apply these tools to study phenomena arising in economics, politics, law, among others. Working through the homework problems is essential for learning the material and learning the material is essential for getting a good grade in this class.

Instructor: Pham Hoang Van; Cashion 301.1; (254) 710-3521; van_pham@baylor.edu;

Office Hours: TR 8:15-11:30A.

Course Time and Location: TR 12:30-1:45P, Cashion 307

Course Webpage: Course materials will be posted on Blackboard.

Text (Required): Avinash Dixit, Susan Skeath, and David Reiley *Games of Strategy*, third edition, Norton Press, 2009.

Grading:

Class attendance and homeworks	15%
Exam #1:	20%
Exam #2:	25%
Final Exam:	40%
<hr/> TOTAL	<hr/> 100%

Exam Schedule:

Exam 1: Thursday, Sep. 22

Exam 2: Thursday, Nov. 3

Final Exam: Friday, December 9, 4:30-6:30P

Attendance: The Hankamer School of Business requires a student to attend at least 75 percent of all class sessions (no more than 7 absences). Students who do not fulfill this requirement will receive a grade of F in the course. The full statement of this policy can be found here: <http://www.baylor.edu/business/economics/index.php?id=84087> .

Special Needs: Students with disabilities who request academic accommodations are required to register with the Office of Access and Learning Accommodation (OALA): 254-710-3605.

Outline of Topics

1. Introduction (Chs. 1-2)
2. Sequential Move Games (Ch. 3)
 - Rollback / Backward Induction
3. Simultaneous-move games (Chs. 4-5)
 - Nash Equilibrium
 - Dominance
 - Best Response
 - Mini-max method for zero-sum games
4. Combining Sequential and Simultaneous Moves (Ch. 6)
5. Mixed Strategies (Chs. 7-8)
6. Uncertainty and Information (Ch. 9)
7. Strategic moves (Ch. 10)
8. Repeated games (Ch. 11)
9. Topics
 - coordination games (Ch. 12)
 - bargaining (Ch. 17)
 - voting (Ch. 15)
 - evolutionary games (Ch. 13) [time permitting]
 - auctions (Ch. 16) [time permitting]
 - market games (Ch. 18) [time permitting]