



**Subject: Economics and Decision Making**

**Number: EBG515**

**Course Title: Economics and Decision Making**

**Section: A**

**Semester/year: Spring 2017**

**Instructor or Coordinator: Edward J. Balistreri**

**Contact information (Office/Phone/Email): ebalistr@mines.edu**

**Office hours: 9-10am TR and 1:30-2:30pm TR**

**Class meeting days/times: 3:30pm-4:45pm TR**

**Class meeting location: Marquez Hall 235**

**Web Page/Blackboard link (if applicable): <http://inside.mines.edu/~ebalistr/>**

**Teaching Assistant (if applicable): NA**

**Contact information (Office/Phone/Email):**

**Instructional activity:**  hours lecture  hours lab  semester hours

**Course designation:**  Common Core  Distributed Science or Engineering  
 Major requirement  Elective  Other (please describe \_\_\_\_\_)

**Course description from Bulletin:**

**EBG515. ECONOMICS AND DECISION MAKING. 3.0 Hours.**

The application of microeconomic theory to business strategy. Understanding the horizontal, vertical, and product boundaries of the modern firm. A framework for analyzing the nature and extent of competition in a firm's dynamic business environment. Developing strategies for creating and sustaining competitive advantage.

**Textbook and/or other requirement materials:**

**Required text:**

Cabral, Luis M. B. (2000) *Introduction to Industrial Organization*, The MIT Press: Cambridge, Massachusetts.

Dixit, Avinash K. and Barry J. Nalebuff (1991) *Thinking Strategically*, Norton: New York.

**Student learning outcomes: At the conclusion of the class students will...**

1. ... have a solid understanding of the basic models of industrial organization
2. ... be able to apply game theory to strategic interactions
3. ... have a basic understanding of the legal context for competition policy and regulation
4. ... be able to use equilibrium modeling tools to evaluate the impacts of a mergers on competition and other outcomes.

**Brief list of topics covered:**

1. Microeconomic review and basic firm optimization
2. Industrial organization and the theory of the firm
3. Game theory
4. Competitive analysis and competition policy

**Policy on academic integrity/misconduct:** The Colorado School of Mines affirms the principle that all individuals associated with the Mines academic community have a responsibility for establishing, maintaining and fostering an understanding and appreciation for academic integrity. In broad terms, this implies protecting the environment of mutual trust within which scholarly exchange occurs, supporting the ability of the faculty to fairly and effectively evaluate every student's academic achievements, and giving credence to the university's educational mission, its scholarly objectives and the substance of the degrees it awards. The protection of academic integrity requires there to be clear and consistent standards, as well as confrontation and sanctions when individuals violate those standards. The Colorado School of Mines desires an environment free of any and all forms of academic misconduct and expects students to act with integrity at all times.

Academic misconduct is the intentional act of fraud, in which an individual seeks to claim credit for the work and efforts of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. Student Academic Misconduct arises when a student violates the principle of academic integrity. Such behavior erodes mutual trust, distorts the fair evaluation of academic achievements, violates the ethical code of behavior upon which education and scholarship rest, and undermines the credibility of the university. Because of the serious institutional and individual ramifications, student misconduct arising from violations of academic integrity is not tolerated at Mines. If a student is found to have engaged in such misconduct sanctions such as change of a grade, loss of institutional privileges, or academic suspension or dismissal may be imposed.

The complete policy is [online](#).

**Grading Procedures:**

Grades will be determined by the student's performance on exams and the group project. The student is required to contact the instructor if class meetings conflict with other responsibilities or qualified excuses.

Grades will be assigned according to the following weighting:

Midterm Exam I (Feb. 16 <sup>th</sup> )	25%
Midterm Exam II (March 23 <sup>rd</sup> )	25%
Group Project (Due May 4 <sup>th</sup> )	10%
Final Exam (As scheduled by CSM—NO EXCEPTIONS)	40%

Generally a grade of **A** is granted for students scoring greater than 92 points, **A-** for between 92 and 90 points, **B+** for between 90 and 88 points, **B** for between 82 and 88 points, etc.

**Coursework Return Policy:** Assignments will be returned within two weeks, along with suitable materials and feedback that enable the student to understand how to improve their learning and performance.

**Absence Policy:** See the Grading Procedures section above.

**Homework:** NA

**Common Exam Policy:** NA

## Detailed Course Schedule:

Week of Jan 9 <sup>th</sup> :	First Class Jan 12 <sup>th</sup> : Principles of Microeconomics (Markets)
Week of Jan 16 <sup>th</sup> :	Microeconomic review continued (efficiency, surplus, cost curves, optimization)
Week of Jan 23 <sup>th</sup> :	Firm-level demand and Monopoly
Week of Jan 30 <sup>th</sup> :	Perfect and almost perfect competition
Week of Feb 6 <sup>th</sup> :	Oligopoly (Cournot, Bertrand, Stackelberg)
Week of Feb 13 <sup>th</sup> :	Spatial Competition and <b>MIDTERM EXAM 1</b> (Feb. 16)
Week of Feb 20 <sup>nd</sup> :	Intro to Game Theory
Week of Feb 27 <sup>th</sup> :	Game Theory Basics (Nash equilibria and dominated strategies)
Week of March 6 <sup>th</sup> :	Game Theory Basics (Normal and extensive forms and sub-game perfection)
Week of March 13 <sup>th</sup> :	Repeated games, trigger strategies, and mixed strategy equilibria
Week of March 20 <sup>th</sup> :	<b>MIDTERM EXAM 2</b> (March 23 <sup>rd</sup> )
Week of March 27 <sup>th</sup> :	SPRING BREAK
Week of April 3 <sup>rd</sup> :	Mixed strategy equilibria cont.
Week of April 10 <sup>th</sup> :	Strategic interactions in small groups with collective decision rules
Week of April 17 <sup>th</sup> :	Introduction to competition policy
Week of April 24 <sup>th</sup> :	Merger simulation models
Week of May 1 <sup>st</sup> :	Work on Project (in-class help) and Project Due on Thursday
Week of May 8 <sup>th</sup> :	<b>FINAL EXAM as Scheduled by CSM</b> (Do not make travel arrangements until you know when the exam is scheduled. Failure to take the final as scheduled will result in a grade of zero for the final, no exceptions.)