Subject: Business Strategy **Number: EBGN315 Course Title: Business Strategy** 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: 11am-12:15pm TR Class meeting location: Alderson Hall 151 Web Page/Blackboard link (if applicable): http://inside.mines.edu/~ebalistr/ Teaching Assistant (if applicable): NA Contact information (Office/Phone/Email): **Instructional activity:** \_3\_ hours lecture \_0\_ hours lab \_3\_ semester hours Course designation: \_\_\_ Common Core \_\_\_ Distributed Science or Engineering Major requirement X Elective Other (please describe ) Course description from Bulletin: EBGN315. Business Strategy. 3.0 Hours. An introduction to game theory and industrial organization (IO) principles at a practical and applied level. Topics include economies of scale and scope, the economics of the make-versus-buy decision, market structure and entry, dynamic pricing rivalry, strategic positioning, and the economics of organizational design. Prerequisite: EBGN201. 3 hours lecture; 3 semester hours. 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 an 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. 16th)25%Midterm Exam II (March 23rd)25%Group Project (Due May 4th)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 13th: Spatial Competition and **MIDTERM EXAM 1** (Feb. 16th)

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 6th: Game Theory Basics (Normal and extensive forms and sub-game perfection)

Week of March 13th: Repeated gams, trigger strategies, and mixed strategy equilibria

Week of March 20<sup>th</sup>: **MIDTERM EXAM 2** (March 23<sup>rd</sup>)

Week of March 27th: SPRING BREAK

Week of April 3<sup>rd</sup>: Mixed strategy equilibria cont.

Week of April 10th: 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 1st: Work on Project (in-class help) and Project Due on Thursday

Week of May 8th: FINAL EXAM as Scheduled by CSM (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.)