Managerial Economics/Strategy: Econ 308-001
Robinson Hall B, Room 111; 12:00 – 1:15 (Tuesday, Thursday)

Instructor: Professor Kevin McCabe, kmccabe@gmu.edu, (o) 703-993-9441
All EMAIL correspondence should be sent to classes@brains.gmu.edu
and have as its subject ECON 308 FALL 2016.

Office Hours: Wednesdays, 2:00-4:00, Room 5016, Metropolitan Bldg., Arlington Campus.

Prerequisite: Econ 306 (which assumes Econ 103, 104 and Math (calculus) 108 or 113)

Course Description: This course is broken down into two phases. The first phase is a learning phase where you learn about concepts relevant to the design of economic institutions for business practice. The learning phase will consist of a series of short lectures with participation in, and discussion of, demonstration experiments. Students are expected to do the required reading before class. The second phase is a research and design phase where you and your team members will use what you have learned to propose a change to an institution to improve business performance. When you finish this course, you should be able to analyze the incentives produced by different institutional rules in different economic environments and be able to propose changes to improve overall system performance.

Required Materials:

(JM) John McMillan, Games, Strategies, and Managers: How managers can use game theory to make better business decisions, Oxford University Press, 1996 (Paperback Version).

Student license to use MobLab: You will be sent an email after the first class asking you to register. The cost is $18. You need to join the class from MobLab's web-based student console, NOT their mobile app. However, once you have joined, you will use Moblab's mobile app in class to participate in experiments and answer questions.

Grading: You will be graded on a hundred-point system as shown below. Your final letter grade will be curved to obtain a grade point distribution of 25% A's, 25% B's, and 50% C's and below. Once the final grade distribution is computed, your extra credit points will be added to your point total to determine your letter grade. This means that, most likely, more than 25% A's and 25% B's will be awarded. For example, if 25% of the highest point totals are between 85 and 100 then this will be the A range. If a student earns 78 points and in this situation has also earned 8 extra credit points, then the student's final grade will be 86 or an A.

MobLab Participation (10 points): MobLab experiments will be run in class. You are not allowed to participate in MobLab experiments unless you are in class. You will receive one point when you participate in all the MobLab experiments for that day. Trying to participate outside of class will result in a loss of ALL MobLab participation points. The maximum MobLab participation points you can earn is 10 points.

Four individual take home case studies (10 points each): Each case study consists of a series of questions and are designed to consolidate your learning experience in one of the

topic areas. Case studies must be completed without the help of anyone else. The case studies will help you be a more productive team member in the second part of the course. Case studies are due at the beginning of class on the assigned due date. Case studies that are less than two days late will lose 5 points. After this you will lose all points for that case study.

When the case studies are returned, if you believe a mistake has been made in grading your assignment, you have until the beginning of next class to request a grade change. You cannot contest grade loss due to illegible handwriting or figures, bad grammar, or failure to make your answer clear. All grade change requests must include a typed reason for the grade change, together with your complete and unaltered original case study answers. Grade change requests must be submitted in class and not by email. After the one class grace period case study grades are final.

Final team paper (20 points): Your team project is to analyze an existing economic institution and propose a change to the institution to improve business performance. Your team paper will document and explain the following:

1. What is the problem? Be sure to document that the problem exists and the magnitude of the problem, i.e., Why the problem should be fixed.
2. How is the problem currently being solved? In this section you must be specific since you must be able to diagnose the problem in terms of what is wrong with current practice.
3. How will your team's proposed solution fix current practice to solve the problem? In proposing your solution your team must consider the cost and benefit of solving the problem. Your team must also propose an empirical metric for showing that your solution has solved the problem.

You must use the material and readings covered in class. To structure your final paper and choose a team topic, you should read the Final Paper Notes on Blackboard. Your final paper will be roughly 16 typed, double spaced, pages including figures and references. The paper is to be handed in at the beginning of the last day of class. Late papers will receive a grade of zero. Your paper grade is final.

Project Idea (5 Points): You must prepare a project idea for the team paper according to the template shown on blackboard. Your project idea must be typed and at most three pages double spaced. In addition, you will submit a three slide power-point project presentation to attract team members. The eight best project ideas will be chosen by Professor McCabe. These ideas will then be presented on 10/27.

Each student not presenting an idea will then rank the projects from 1 (highest) to 8 (lowest) in terms of their preference for working on a project. If you fail to list a team preference you will lose five points and be randomly assigned to a team. On 11/1 team assignments will be posted on Blackboard.

Two team presentations and interim reports (5 points each): Your team will make two interim reports building up to your final team paper and will make two presentations based on your reports. The first report will be no more than eight typed, double spaced, pages including

figures and references. The second report will be no more than sixteen typed, double spaced, pages including figures and references. Interim reports are due at the beginning of class on the first day of presentations. In addition your team will prepare a ten slide PowerPoint presentation that describes the salient points in your report and lasts no more than 15 minutes. Your report and PowerPoint must be turned in at the beginning of class on the first day of presentations. Late reports or PowerPoints will receive zero points. Your team will then be randomly chosen to do a fifteen-minute PowerPoint. Interim presentation and grade points are final and will not be changed.

In Class Quiz (10 points): The in class quiz will be on the chapter readings in McMillan. Each quiz will start at 12:00 and end at 12:10. You must be in class to take the quiz. Each quiz will be worth two points. Your two lowest quiz scores will be dropped. All quiz grades are final.

Peer Evaluation (5 points): Each team member will send Professor McCabe a one-page typed assessment of themselves and each of their team members. The peer evaluation form is posted on Blackboard. This assessment is private and cannot be shared with the other team members. The assessment will include what each team member did on the project, a grade from 0 to 5, and a reason for the grade. Professor McCabe will assign your peer evaluation grade based on these assessments. If you fail to submit a peer evaluation report on 12/8 you will earn zero peer evaluation points.

Extra Credit (10 Points): In addition to the MobLab participation points you will earn a 1/3 extra credit point anytime your performance in a MobLab experiment exceeds the median performance of the class. Since there is often more than one MobLab experiment run on a given day there will be many opportunities to earn extra credit points. You can earn up to ten extra credit points. Extra credit points will be applied to your grade after the final grade distribution is determined. You will not learn how many extra credit points you have earned until after all the Moblab experiments have been run. Therefore, you should try to earn as many experimental points as possible in each MobLab experiment.

Students with Disabilities: If you have a learning or physical difference that may affect your academic work, you will need to furnish appropriate documentation to the Office of Disability Services. If you qualify for accommodation, the ODS staff will give you a form detailing appropriate accommodations for your instructor. In addition to providing your professors with the appropriate form, please take the initiative to discuss accommodation with them at the beginning of the semester and as needed during the term. Because of the range of learning differences, faculty members need to learn from you the most effective ways to assist you. If you have contacted the Office of Disability Services and are waiting to hear from a counselor, please tell me.

Honor Code: George Mason University is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process. What does academic integrity mean in this course? Essentially this:

(1) When you are responsible for a report, presentation, or case study, you will perform that task to the best of your ability. Case studies and quizzes are to be done completely independently. Any interaction with others during these times is in violation of the honor code.

(2) When you rely on someone else's work in your reports, presentations, or case studies you will give full credit in the proper, accepted form.

(3) Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions.

Dues Dates – All assignments are due at the beginning of class.

8/30 First day of class; MobLab invitations sent; Survey taken.
9/1 Second day of class; MobLab accounts should be set up; MobLab Experiments
9/6 Quiz 1 on Chapter 2
9/8 Quiz 2 on Chapter 3
9/13 Quiz 3 on Chapter 4
9/20 Case 1 Due
9/22 Quiz 4 on Chapter 5
9/27 Quiz 5 on Chapter 6
9/29 Case 2 Due
10/6 Quiz 6 on Chapters 8 & 9
10/13 Quiz 7 on Chapter 11
10/18 Case 3 Due
10/25 Project Ideas Due
10/27 Project Idea Presentations (5 Minutes) and Preference Rankings
11/3 Case 4 Due
11/8 First Interim Report and Power-point Presentation Due
11/29 Second Interim Report and Power-point Presentation Due
12/8 Final Paper Due
12/9 Peer Evaluation Due

Course Schedule: This schedule might undergo some further revision. Readings from JM should be done before class. You should also work through the Chapter Appendix before each class.

8/30 Theories of the Firm
9/1 Institutions and Microeconomic Systems
9/6 Basic Game Theory: JM Ch. 2
9/8 Advanced Game Theory: JM Ch. 3; Case One Assigned
9/13 Risk Preferences and Risk Sharing: JM Ch. 4
9/15 Decision Trees
9/20 Optimal Search; Case One Due; Case Two Assigned
9/22 Bargaining: JM Ch. 5
9/27 Information and Incentive Problems: JM Ch. 6
9/29 Property Rights and Incentives; Case Two Due
10/4 Reputations and Reputation Systems
10/6 Managing Incentive Problems; JM Ch. 8, 9; Case Three Assigned
10/11 **Columbus Day Break**
10/13 One-Sided Auctions; JM Ch. 11
10/18 Asset Markets and Prediction Markets; Case Three Due
10/20 In Class Work: Project Ideas. What is the problem and proposed team strategy?
10/25 Permit Markets and Summary; Project Ideas Due; Case Four Assigned
10/27 Project Ideas Presentations (5 Minutes) and Team Preferences
11/1 In Class Work: What is the problem? How is it currently solved?
11/3 In Class Work: What is the problem? How is it currently solved? Case Four Due
11/8 First Presentations; Interim Reports and Presentations Due
11/10 First Presentation
11/15 In Class Work: What is our solution? How will we measure success?
11/17 In Class Work: What is our solution? How will we measure success?
11/22 **Thanksgiving Break**
11/24 **Thanksgiving Break**
11/29 Second Presentations; Interim Reports and Presentations Due
12/1 Second Presentations
12/6 In Class Work: Final Paper Preparation
12/8 Course wrap up; Final Paper Due

MobLab Classes

9/1 Pit Market; Double Auction
9/6 PD; Coordination Games; Hide and Seek; Keynes Guessing Game
9/8 Matching Pennies; Rock-Paper-Scissors; Cournot; Repeated PD
9/13 Bomb Risk Assessment; Holt-Laury Risk Assessment
9/15 Sunk Costs; Monty Hall Problem (as Survey)
9/20 Cognitive Reflection Survey; Hat Signal Problem (as Survey); Weitzman Problem
9/22 Dictator, Ultimatum, Bargaining
9/27 Trust Game; Lemons Markets; Externalities
9/29 Public Goods and the Commons (Shared Resources)
10/4 Reputations in the Commons
10/6 Minimum Effort Games; Commitment Game
10/13 Private Value: Sealed Bid; English; Ascending Clock; Descending Clock;
10/18 Common Value Sealed Bid; Asset Market
10/25 Permit Markets