ECONOMICS 103   Professor Ronald A. Heiner
Summer A Term

INTRODUCTION – ECONOMICS

1.   Optional textbooks: *Microeconomics & Behavior* by Robert Frank and Microeconomics:
        Free Market Approach, edited by Rustici.

2.   Office hours: Monday, 3 - 4 pm, at Carow Hall. When possible, I will answer questions
        just after class when that is more convenient for students (avoiding the extra time to meet
        at my office in Carow Hall). Carow Hall is located off of Shenendoah Drive across from
        Presidents Park dorms.

3.   Goals & Requirements: This course will give an introduction to basic analysis of
        individuals involved in market trading within a larger exchange economy. After the
        midterm, we will also give an introduction to experimental markets. Problem sets will be
        given to provide practice and key concepts and feedback on students' understanding. A
        midterm will be given at the end of week 3. A comprehensive final exam will also be
        given on the last day of class.

4.   Content & Instruction Methods: Most classes will be a mixture of lecture and discussion.
        Student comments and questions are encouraged and recommended for everyone's
        benefit (for more enjoyable and better understood ideas). Students will also participate in
        a few experimental auction markets conducted during class. The latter will provide a
        more explicit "hands on" learning experience.

5.   Customized problem sets will be given out, and recorded by a check–mark if turned in on
        time. They are intended to give practice on key principles, as well as a helpful study
        guide for the actual questions on the midterm and final exams.

6.   Tests & Evaluation Methods: Problem sets will be worth 10% of the final grade. The
        midterm and final exams are worth 40% and 50% respectively. However, if your final
        exam score exceeds your midterm score by at least 10%, then the final exam will be
        weighted 70% of the total grade; so the weights for midterm and problem sets are then
        20% and 10% respectively. Your grade is based on the weighted average at the end of the
        term. A 95-100, A- 90 up to 95; B+ 87 up to 90, B 84 up to 87, B- 80 up to 84; C grades
        (same as B grades, except from 70 up to 80); D grades (same as B grades, except from 60
        up to 70), grade failure below 60.

7.   We will begin by reviewing basic supply/demand concepts with graphs. Then a first
        example about the effects of price controls is given; followed by the effects of sales taxes
        and subsidies.

ECONOMICS 306   Professor Ronald A. Heiner
Summer A Term

INTERMEDIATE   MICRO – ECONOMICS

1.   <u>Texts</u>:   We will use two main textbooks; *Microeconomics & Behavior* by Robert Frank, and *Experimental Economics* by Holt & Davis. Used versions of these textbooks are fine, and may save you some money compared to the newest edition.

2.   <u>Office hours</u>: Monday, 2^{30} - 3^{30} pm, at Carow Hall. Other times by appointment (just ask before or after class). If possible, I will answer questions just after class when that is more convenient for students (avoiding the extra time to meet at my office in Carow Hall). Carow Hall is located off of Shenendoah Drive across from Presidents Park dorms.

3.   <u>Goals & Requirements</u>: This course will give an introduction to intermediate microeconomic analysis of individuals involved in market trading within a larger exchange economy. After the midterm, we will also give an introduction to experimental markets, using the text by Holt & Davis above. Several problem sets will be given to provide practice and key concepts and feedback on students' understanding. A midterm will be given (during the week just before or just after the spring break). A comprehensive final exam will also be given. I recommend that students have some background in econometrics and/or probability & statistics, because certain topics will use probability concepts more extensively.

4.   <u>Content & Instruction Methods</u>: Most classes will be a mixture of lecture and discussion. Student comments and questions are encouraged and recommended for everyone's benefit (for more enjoyable and better understood ideas). Students will also participate in a few experimental auction markets conducted during class. The latter will provide a more explicit "hands on" learning experience.

5.   Customized problem sets will be given out, and recorded by a check–mark if turned in on time. They are intended to give practice on key principles, as well as a helpful study guide to help you prepare for the midterm and final exams.

6.   <u>Tests & Evaluation Methods</u>: Problem sets will be worth 10% of the final grade. The midterm and final exams are worth 40% and 50% respectively. However, if your final exam score exceeds your midterm score by at least 10%, then the final exam will be weighted 70% of the total grade; so the weights for midterm and problem sets are then 20% and 10% respectively. Your grade is based on the weighted average at the end of the term. A 95-100, A- 90 up to 95; B+ 87 up to 90, B 84 up to 87, B- 80 up to 84; C grades (same as B grades, except from 70 up to 80); D grades (same as B grades, except from 60 up to 70), grade failure below 60.

7.   Getting Started: Read Chapter 1 - 2 of Frank's text. We will begin by reviewing basic supply/demand concepts with graphs. Then a first example about the effects of price controls is given; followed by the effects of sales taxes and subsidies.

ECONOMICS 412   Professor: Ronald A. Heiner
Summer
GAME THEORY & THE PRISONERS' DILEMMA

1.   Text: We will use the textbook, *Games & Information*, by Eric Rassmussen.

2.   Readings: Additional readings will also be used, available at the Johnson Center. A list will be
        passed out after the first week of class.

3.   Office Hours: Monday, 2^{30} - 3^{30} pm, at Carow Hall. Other times by appointment (just ask before
        or after class). If possible, I will answer questions just after class when that is more convenient
        for students (avoiding the extra time to meet at my office in Carow Hall). Carow Hall is located
        off of Shenandoah River Lane across form Presidents Park dorms.

4.   Goals & Requirements: This course will give an introduction to game theory concepts, and then
        focus on the prototypical case of "cooperation versus conflict", called the Prisoners' Dilemma.
        Both traditional and new approaches to this prototypical case will be discussed. Lectures on
        traditional approaches will use certain chapters from Rassmussen's text. Lectures on newer
        approaches will use the set of readings mentioned in topic 2 above. Problem sets will be given
        to provide practice on key concepts and feedback on students' understanding. A midterm will
        be given, and a comprehensive final exam will also be given. Students also need to have
        background in econometrics and/or probability & statistics classes, because most topics will use
        probability concepts extensively.

5.   A. Content & Instruction Methods: Most classes will be a mixture of lecture and discussion.
        Student comments and questions are encouraged and recommended for everyone's benefit (for
        more enjoyable and better understood ideas).

        B. Customized problem sets will be given out, and recorded by a check–mark if turned in on
        time. They are intended to give practice on key principles, as well as a helpful study guide to
        help you prepare for the midterm and final exams.

6.   Tests & Evaluation Methods: Problem sets will be worth 10% of the final grade. The midterm
        and final exams are worth 40% and 50% respectively. However, if your final exam score
        exceeds your midterm score by more than 10%, then the final exam will be weighted 70% of the
        total grade [so the midterm and problem sets are then weighted 20% and 10% respectively].
        Your grade is based on the weighted average at the end of the term. A 95-100, A- 90 up to 95;
        B+ 87 up to 90, B 84 up to 87, B- 80 up to 84; C grades (same as B grades, except from 70 up to
        80); D grades (same as B grades, except from 60 up to 70), grade failure below 60.

7.   Getting Started: Read Chapter 1 of Rassmussen's text. We will begin by introducing the basic
        idea of strategic behavior in games, in contrast with "price taking" behavior in perfectly
        competitive economic systems. Next we will discuss key game theory concepts like: actions
        versus strategies, players, payoff functions, strategic form payoff matrices, extensive form game
        trees, Nash equilibrium, dominant strategies, mixed strategies, behavioral strategies, perfect
        versus imperfect information, sequential versus simultaneous games, and so on. We will
        illustrate these concepts with a number of simple games, including key representative games
        about "cooperation" versus "conflict" situations, including the prisoner's dilemma, and other
        games such as: pure coordination, chicken, battle of the sexes, etc.