UNIVERSITY OF COLORADO
BOULDER, COLORADO

Economics 4413
International Trade

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     http://www.colorado.edu/Economics/courses/fall11-4413-001.html

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Office Hours: Monday, Wednesday 10:00-11:00, 15:00-16:00

Course Outline and Reading List

Econ 3070, intermediate microeconomics, is a pre-requisite for the course and is rigorous enforced.

Professor Maskus and I are currently completely rewriting an old textbook of ours: the new version will be called something like: Markusen and Maskus, International Trade: Theory and Applications, Wiley Publishers, 2014.

The CU bookstore has duplicated and bound the manuscript which is on sale there at cost: no fees or royalties are being collected by myself.

The slides I will use in class are posted on the course website and also on my personal website. These are large font slides, so I suggest that you print two (or even four) to a page and bring them to class; this avoids you have to write down too much during class and frees the mind to think and question.

We had a major disruption in our teaching schedule for the fall due to the late resignation of a professor who was to teach this course, resulting in a complete reorganization of my teaching schedule. As a consequence, I was committed to being away for a number of days that now conflicts with my teaching schedule. Classes I am missing will be covered by highly accomplished professors, including three classes in September taught by professor Keith Maskus. You are expected to attend all classes taught by my substitute and the material in them will surely appear in exam questions.

Because of my extremely complicated fall term, assessment in the course will consist of three exams only, **mid-term dates subject to change**:

Mid-Term Exam 1	30%	Wednesday, September 25
Mid-Term Exam 2	30%	Friday, October 25
Final Exam	40%	Saturday, December 14, 16:30-18:30

Final Exam schedule:
http://registrar.colorado.edu/calendar/pdf/fall_2013_final_exam_schedule.pdf

Sample questions from past exams are given at the end of this syllabus.

The exams will be analytical-essay type exams in which you will be asked, for example, to analyzed the relationship between two variables or assess the likely effects of some policy.

In the lectures, I will try to present theory in the first half of the class period, and applications in the second half.

The topics and readings follow. **Many sections of the new book are advanced and written more for master's and MBA students. Which sections to skip will be announced in class. Students are responsible for all announcements made in class. I will not be continually updating the website with announcements, etc.**

PART I: TECHNICAL TOOLS AND THE GAINS FROM TRADE

In this part of the course, we develop and review basic tools of microeconomic theory that we will use throughout the course.

1.   Supply and Production Possibilities
        MM chapter 2

2.   Preferences, Demand, and Welfare
        MM chapter 3

3.   General Equilibrium in Open and Closed Economics
        M chapter 4.

4.   The Gains from Trade
        MM chapter 5.

PART II: DETERMINANTS OF TRADE

This section analyzes the different underlying causes of international trade and the gains from trade.

1.   Differences in Technology between Countries.
        MM, chapters 6 and 7.

2.   Differences in Factor Endowments between Countries.
        MM chapters 8 and 9.

3.   Distortions and Policies as Determinants of Trade.
        MM chapter 10.

Economics 4413-001, International Trade, Prof Markusen

Review questions for Chapters 2-8

Please note that these questions can be answered with varying "tools": algebra, geometry, careful and logical verbal (words) argument.

Similarly, the degree of rigor and quality of the explanation can vary. Approach the questions as if you are trying to explain the material to another student who has had intermediate micro but missed the class.

I give substantial points for the quality and clarify of the answer.

1. Derive the curvature of the production frontier (two goods) when (1) there is a single factor of production and constant returns to scale.

2. Derive the curvature of the production frontier (two goods) when (1) there is a single factor of production and increasing returns to scale in both industries.

3. Derive the curvature of the production frontier graphically using the Edgeworth box for the "Heckscher-Ohlin" model: two goods, two factors, both factors mobile between industries.

4. Define the economy's social optimal output levels for given goods prices. Prove: given perfect competition and the absence of distortions such as taxes or externalities, profit maximization by individual firms results in the socially optimal output levels for given goods prices.

5. Define homogeneous preferences. Why is this a useful assumption for analyzing trade?

6. Discuss the pitfalls of using a national or "community" indifference curve to analyze the welfare effects of trade; specifically, aggregate consumption versus individual welfare.

7. Explain the fundamental difference facing an open versus a closed (autarky) economy.

8. Explain or show the following: the condition that a country satisfy trade balance is equivalent to the value of production equally the value of consumer expenditure.

9. Explain or show the following: if a country is running a balance-of-trade deficit, then consumption spending exceeds the value of production.

10. Illustrate (graphically) how to derive a country's excess demand function. What is the interpretation of the "zero" point, the price at which excess demand is zero?

11. Explain why the free-trade price ratio for two countries must lie in between their autarky price ratios.

12. Explain and illustrate graphically the following proposition: a country's welfare is higher the

further the world price ratio is from its autarky price ratio.

13.   Reproduce the gains-from-trade theorem without looking at the book (it is only three lines long!).

14.   What does the gains from trade theorem say about the distribution of the gains within a country?

15.   How is the gains-from-trade theorem useful in countering the argument that one country can only gain at the expense of another (a zero sum or negative sum game)?

16.   Define and explain gains from exchange versus gains from specialization.

17.   Use Figure 5.1 to address the argument that it is better to export high-tech than low-tech goods.

18.   Can you explain the issue of the distribution of total gains from trade between two countries in Figure 5.3 is similar to the idea in question 12 (the further you trade from your autarky price ratio the better?

19.   Use the idea in Figure 5.4 to argue that a group that has a high preference for the country's own export good could be made worse off by trade liberalization.

20.   Write a short five-sentence report for the president stating what sort of groups within a country might be made worse off by trade liberalization and what sort of groups seem sure to gain.

21.   Given the problem of the internal division of gains in Figures 5.6 and 5.7, can you argue that the gains-from-trade theorem must imply that the gaining group must be able to compensate the losing group such that everyone one is better off with free trade relative to autarky?

22.   State the "no-trade" model. What is the idea behind this? Why do we care?

23.   In the two-good, one-factor Ricardian model, define comparative advantage and define absolute advantage. If I look at the production possibility frontiers of individual workers for two countries, how would I identify absolute versus comparative advantage in the figure?

24.   In the two-good, one-factor Ricardian model, the ability of two countries to gain from trade does not depend on absolute advantage. True, false, explain.

25.   In the Ricardian model, how do we know that market economies specialize in the "correct" good: the comparative-advantage good?

26.   If one country has an absolute advantage in both goods, it must have a higher real wage in free-trade equilibrium. True/false, explain.

27.   Use the Ricardian model to suggest a response to the argument that "high wage countries should not trade with low wage countries because the high wage country will lose jobs".

28.   In the Ricardian model, discuss how differences in country size are an important determinant of the division of the total gains from trade between two countries.

29.   Discuss how the "intersection" of a country's relative factor endowment with the relative factor intensities of two goods determine it comparative advantage.

30.   State the Heckscher-Ohlin theorem. Work though the steps of the proof.

31.   State the Stolper-Samuelson theorem. Work through the steps of the proof.

32.   State the Rybczynski theorem. Work through the steps of the proof.

33.   State the Stolper-Samuelson theorem. What does it suggest about the politics of trade

cigarettes). Contrast a consumption and a production tax on Y in achieving this goal.

7.   Suppose that we have two identical countries and so free trade involves no trade (free trade prices equal autarky prices). Show the effects of a subsidy in one country to X on production and welfare in both countries.

        Questions 8-13 involve a model with a constant-returns, competitive sector Y, an imperfectly competitive sector producing a homogeneous good X, and a single factor of production L.

8.   Derive the formula for marginal revenue and therefore for the optimal markup for a producer of a homogeneous good under Cournot competition. Contrast the markup when this firm is a monopolist versus when there are two firms in the market.

9.   Suppose that there are two identical economies each with a monopoly producer of X. Show and explain how the opening of trade leads to gains from trade. Use the Cournot markup formula presented in class and in the book.

10.   Consider the technology we have used several times: there is a fixed cost to production and a constant marginal cost. Show why such technologies are incompatible with perfectly competitive outcomes with large numbers of firms.

11.   Show graphically what an equilibrium will look like when there is free entry and exit of firms so that firms earn zero profits in equilibrium.

12.   Show what happens following the opening of trade between two identical economies given free entry and exit in each country. Is it possible that trade allows consumers to consume more of both goods?

13.   How is it that the opening of trade can reduce the number of firms in each country yet create more competition for the consumer?

        Questions 14-19 involve a world where the X sector consists of many firms producing differentiated products.

14   Write down the Dixit-Stiglitz "love of variety" utility function. Show that this implies that consumers value diversity, and that having double the number of products is better that having twice as much of each existing product.

15.   "Gains from trade in the presence of scale economies can be taken either in the form of the same number of products at lower prices, or more products at the same prices." Explain this statement.

16.   Outline the "love of variety" approach to product differentiation. How can the opening of trade between two identical economies make consumers better off? Why are scale economies vital to the argument?

17.   Apply the "love of variety" approach to specialized intermediate goods. How can allowing

trade in differentiated intermediate goods improve the productivity of final goods production?

18.   Outline the "ideal variety" approach to product differentiation. Define ideal and compromise varieties. Under what circumstances might the compromise variety be preferred to each of two groups getting their ideal variety?

19.   In the ideal variety model, how can the opening of trade between two identical economies make consumers better off? Why are scale economies vital to the argument?

20.   State the "Linder Hypothesis". What empirical facts are this theory suppose to explain? Why can't the Heckscher-Ohlin model explain these facts?

21.   Explain Vernon's product-cycle model. What empirical facts are this theory suppose to explain? Be sure to indicate how it is a natural extension of the Linder Hypothesis.

22.   Suppose that goods with high income elasticities of demand are also capital or skilled-labor-intensive goods. How does this help us understand the volume (amount) of trade among the high-income countries versus "north-south" trade between the high-income countries and the low-income countries?

Review questions for Chapters 15-16, 18- 20

Please note that these questions can be answered with varying "tools": algebra, geometry, careful and logical verbal (words) argument.

Similarly, the degree of rigor and quality of the explanation can vary. Approach the questions as if you are trying to explain the material to another student who has had intermediate micro but missed the class.

I give substantial points for the quality and clarify of the answer.

1.   Discuss trade in goods versus trade in factors of production (capital and labor). Discuss to what

abundant countries. What new theory explains this?

6.   Outline the OLI view of multinational firms. In these terms, why is Nike not a "true" multinational?

7.   What properties of knowledge capital as opposed to physical capital help explain why the former is highly correlated with multinational firms?

8.   Outline a model which explains the conditions under which a firm will under take a "horizontal" strategy, building plants in both of two countries.

9.   Outline a model which explains the tradeoff between owning a foreign subsidiary versus outsourcing production to a local firm.

10. An import tariff on X can be duplicated by a production subsidy on X and a production tax on Y. True/False, explain.

11. Use the Heckscher-Ohlin model to explain how an import tariff on X redistributes income inside the country.

12. Evaluate the following argument: "if the government's goal is to increase production in sector X, it is better to use an import tariff to protect the X sector than to use a domestic production subsidy on X".

13. Answer both parts.
     (A) An import tariff on X is the same as an export subsidy on Y. True/False, explain.
     (B) An import tariff on X can be duplicated by a production subsidy on X and a production tax on Y. True/False, explain.

14. Explain the "second best" infant industry argument (using a tariff to correct some other distortion), and then evaluate whether or not it makes sense.

15. Define quota rent and indicate how alternative ways of instituting the quota distribute rents in different ways. Explain how quotas can be used as an instrument of corruption.

16. If you were the prime minister and wanted to reward your friends without paying anything out of the government treasury, how might you do it?

17. Develop the argument that a country's welfare may be improved by a production or export subsidy for an industry producing with increasing returns and imperfect competition.

18. Contrast the effects of a production subsidy in a distortion-free, competitive world versus one in which the industry in question is imperfectly competitive.

19. Present and analyze one set of assumptions under which an export subsidy must be welfare reducing for the subsidizing country. Present an alternative model in which the export subsidy could be welfare improving.

Policies, Etiquette

E-mail policy: you may email me with small questions, but I tend not to answer questions that have been answered twice in class. You are responsible for what is presented in class, including revisions to the syllabus and changes in mid-term dates. I don't respond to emails and questions like "what did I miss in class last Friday [when I blew off class to go skiing]".

Class attendance policy: I don't take attendance unless there is particularly poor attendance on a given day. But you are responsible for everything say in class and I will not repeat it for you. On adjusting marginal marks (e.g., D+ to C-), I do consider your attendance and class participation.

My mother bought me a plane ticket without asking policy: no, don't even bother to ask. The final

honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

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All students of the University of Colorado at Boulder are responsible for knowing and adhering to the