

UNIVERSITY OF COLORADO  
BOULDER, COLORADO

Economics 4413  
International Trade

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<http://spot.colorado.edu/~markusen>.

<http://www.colorado.edu/Economics/courses/spring11-4413-001.html>

Office: Economics Building 216,

**Office Hours:** Monday 11:00-12:00, Wednesday 11-12:00, 13:00-14:00

### Course Outline and Reading List

The Course Outline given below lists the major topics we will deal with in this course.

Professor Maskus and I are currently completely rewriting a 1995 textbook of ours: the new version will be called something like: Markusen and Maskus, *International Trade: Theory and Applications*, Wiley Publishers, 2012.

The CU bookstore has duplicated and bound chapters 1-20 which are on sale there at cost: no fees or royalties are being collected by myself.

I have to make up a new set of slides for class, since the old ones use different notation from the new book. I'll try my best to have these ready a week in advance of each class. 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.

Assessment in the course will consist of the following, **mid-term dates subject to change:**

Mid-Term Exam 1	30%	Wednesday February 16
Mid-Term Exam 2	30%	Friday April 1
Final Exam	40%	Saturday April 30, 19:30-22:00

Final Exam schedule: [http://registrar.colorado.edu/calendar/exam\\_sched\\_spring11.html](http://registrar.colorado.edu/calendar/exam_sched_spring11.html)

Sample questions from past exams will be circulated.

The exams will be analytical-essay type exams in which you will be asked, for example, to analyze 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.
4. Imperfect Competition and Increasing Returns I: oligopoly  
MM chapter 11.
5. Imperfect Competition and Increasing Returns to Scale II: monopolistic competition  
MM chapter 12.

6. Trade Costs  
MM chapter 13.
7. Demand Determinants of Trade  
MM chapter 14

#### **PART IV: FACTOR TRADE AND DIRECT FOREIGN INVESTMENT**

The final section of the course looks at trade in factors of production and direct foreign investment by multinational firms.

1. Trade in Factors of Production  
MM chapter 15
2. Direct Foreign Investment  
MM chapter 16
3. Migration  
MM chapter 17

#### **PART III: TRADE POLICY**

This part of the course analyzes the principal tools that governments use to influence trade. We analyzed the effects of the policies and try to understand the reasons that governments choose the policies they do.

1. Tariffs  
MM Chapter 18
2. Quotas  
MM chapter 19
3. Imperfect Competition, Increasing Returns, and Strategic Trade Policy.  
MM chapter 20
4. Preferential Trade Areas  
MM chapter 21
5. The Political Economy of Trade Policy  
MM chapter 22.

## 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 clarity of the answer.

1. Derive the curvature of the production frontier (two goods) when (1) there is a single factor of the 5tio f

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 its comparative advantage.
30. State the Heckscher-Ohlin theorem. Work through 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 liberalization? Who should we expect to lobby for or against free trade?

### Review questions for Chapters 9-12, 14

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 clarity of the answer.

1. In the specific factors model, analyze who gains and who loses from protection that raises the price of the import good.
2. Contrast the gainers and losers from protection in the specific-factors model versus the Heckscher-Ohlin model.
3. Government policies can induce trade, but such trade is not necessarily beneficial. True, False, explain.
4. Production and consumption taxes tend to have opposite effects on the direction of trade. True, False, explain.
5. Suppose that a small country faces fixed world prices that happen to be equal to its (undistorted) domestic autarky prices. Show the effect of a production subsidy to the X sector on production, welfare, and exports (include a diagram and a careful verbal explanation).

6. Suppose that a small country faces fixed world prices that happen to be equal to its (undistorted)

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 extent trade in goods and factors could be thought of as substitutes.
2. Explain the welfare equivalence of three types of trade:
  - (A) US exports-capital intensive goods to Mexico and imports labor-intensive goods.
  - (B) US exports capital to Mexico and imports goods.
  - (C) US imports Mexican workers and exports goods.
3. Discuss trade in goods versus trade in factors of production (capital and labor). Discuss to what extent trade in goods and factors could be thought of as complements.
4. With increasing returns to scale, equal relative endowments of factors across countries (e.g., countries identical) is generally not optimal (e.g., it leaves unexploited gains from trade). Explain.
5. The traditional view of multinationals was that they moved capital from capital abundant to



capital scarce countries. Yet most multinational investment takes place *among* the capital

## 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.*

**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.

**Four-grand-parent policy:** students are not allowed to petition for missing exams and so forth for the death of a fifth or more grandparent. Four is the limit.

**My mother bought me a plane ticket without asking policy:** no, don't even bother to ask. The final exam time and date is set by the registrar and is already known: Saturday April 30, 19:30-22:00

**Athletics, clubs events, religion, weddings, etc. policy:** all these things are known well ahead of time. If you have a conflict with an exam, tell me this week or forever hold your peace.

**Metric only policy:** in order to take a small step in rebelling against US backwardness, all questions, answer, and discuss involving units of weights/measures/distances and so forth should be in metric unit.

**European grading policy:** I start from zero and add points, rather than the odd American policy of starting at 100 and subtracting. Hence never come to me and ask "where did I lose points?". A and B+ grades are reserved for answers that are not only correct but clear, logical, and generally well written. For an A mark and answer must also be technically rigorous.

Students: here are a list of comments that we are urged to put on our syllabus. I personally find some of this juvenile, offensive, and patronizing. The most annoying thing is that the University of Colorado actually pays people good salaries to make up this stuff. No wonder folks in the "real world" mock our "ivory tower". I think we all know the standards for behavior and professional conduct without being lectured by bureaucrats.

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and [www.Colorado.EDU/disabilityservices](http://www.Colorado.EDU/disabilityservices) Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at [www.colorado.edu/disabilityservices](http://www.colorado.edu/disabilityservices)

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Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly

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](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 academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>