

UNIVERSITY OF COLORADO  
BOULDER, COLORADO

Economics 4413  
International Trade

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

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Office: Economics Building 216,

Office Hours: MWF 9:00-10:30 or by special appointment

Course Outline and Reading List

\*\*\*\*\*Econ 3070, intermediate microeconomics, is a pre-requisite for the course and is 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-Blackwell Publishers, 2015.

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.

Assessment in the course will consist of three exams, mid-term dates subject to change

Mid-Term Exam 1	20%	Wednesday, September 23
Mid-Term Exam 2	20%	Wednesday, October 28
Group projects	25%	Presentations before a break, paper due Monday Dec 7
Final Exam	25%	Thursday, December 17, 16:30-18:00

Random and non-random attendance for bonus/demerits 10%

Final Exam schedule:

<http://www.colorado.edu/registrar/calendars-schedules/final-exams-schedule>

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 analyze the relationship between two variables and assess the likely effects of some policy.

In the lectures, I will present theory in the first half of the class period, and applications in the second half. At least twice a week, I will present "short part of the day". These are often relevant to the group projects and it is important you don't miss them.

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  
MM 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.
7. Demand Determinants of Trade  
MM chapter 14

## PART III: FACTOR TRADE AND DIRECT FOREIGN INVESTMENT

The final section of the course looks at ~~trade~~ 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 IV: 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. Political Economy of Trade Policy - class notes

This is a tentative plan for the group projects.

I will form groups of probably 4, after add-drops are finished.

Project titles will go in envelopes.

One person from each group chooses an envelop.

Oral class presentations in late November, written paper due Dec 7

Trade and wages

Sugar and cotton policies

Production, trade, and value added in the auto industry

Apple iPhone

Pollution haven hypothesis

Is US healthcare better or just horrifically expensive

Changes in US energy dependence/independence

Corporate tax and overseas earnings controversy

Immigration: H1B visa quota and controversy

Intellectual property protection and the importance to US firms

# Economics 4413-001, International Trade, Prof Markusen

## Review questions for Chapters 2-8

Please note that these questions can be answered by using “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 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 equals the value of consumer expenditure.

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?

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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.





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 using “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. 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 in the capital abundant countries. What new theory explains this?
6. Outline the OLI view of multinational firms. In these terms, why is Nike not a “true”



Students: here are a list of comments that we are urged to put on our syllabus. I personally find some of this patronizing. I think we all know the standards for behavior and professional conduct.

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)

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, {{insert your procedures here}}