International Trade
440.665.51

Course Outline
The first part of the course examines the causes of trade, the sources of the gains from trade, and
the domestic and international distribution of those gains. In addition, it introduces the politico-
economic causes of trade policy and addresses the theory and empirics of trade and growth. The
second part examines in detail the instruments and consequences of trade policy, namely tariffs
and quantitative restrictions, and their current manifestation as anti-dumping and safeguard
measures.

Course Requirements
Problem sets, midterm exam, and final exam each account for 1/3 of the grade. Problem sets are
appended to this syllabus. Class participation is welcome anytime.

Contact
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Prerequisites

Textbook, Readings
The course text is James Markusen, et. al. International Trade: Theory and Evidence, McGraw-
material is drawn from Harry P. Bowen, Abraham Hollander, Jean-Marie Viaene, Applied
International Trade, 2nd edition, Palgrave Macmillan 2012, which will be on e-reserves. All
other readings will be on (e) electronic reserve WEI665.

Weekly Topic Schedule
1a. Comparative Advantage
Markusen, et. al., Chapter 7.

1b. Reciprocal Demand
Markusen, et. al., Chapter 4.

2,3a. The Heckscher-Ohlin Model
Markusen, et. al., Chapter 8.

3b. Application: Child Labor
Kaushik Basu, “Child Labor: Cause, Consequence, and Cure, with Remarks on International Labor Standards”, *Journal of Economic Literature*, 37/3 (September, 1999), Section 6.1., 6.2

4. The Specific Factors Model and a little Political Economy
Markusen, et. al., Chapter 9.
Irwin, 2009, Chapter 3.

5. Scale Economies and Imperfect Competition
Markusen, et. al., Chapters 11, 12.

6a. The Gravity Model

6b. Trade and Growth
Bowen, Hollander, Viaene, Section 14.6, Growth Empirics, pp. 483ff.

7. **Midterm Examination** (1½ hours on Sessions 1-5; remaining time is buffer)

8. Trade Policy Under Perfect Competition.

9. Terms-of-Trade, Infant Industry, and Environmental Tariffs (Second-Best Protection)
Markusen, et. al., Chapter 15.4-15.5.

10. Trade Policy Under Imperfect Competition
Markusen, et. al., Chapter 17.

11. Preferential Trading Areas
12. Firms in International Trade


Homework—6 per cent points each (incl. 3 points free lunch)


Students are encouraged to collaborate in study groups of 3 persons to solve homework problems. Each study group may hand in one neat, legible, copy of the answers, with the names of all the study group members listed. Group membership must be stable. Late homework will not be accepted.

1. **Ricardo—due at class meeting 2.**
Suppose that in England 5 man-hours are required to produce each cask of wine and 5 man-hours are required to produce each bolt of cloth, whereas in Portugal 1 man-hour is required for a cask of wine and 4 man hours for a bolt of cloth. Each country has a labor force of 100 man-hours.
   a. Which country has a comparative advantage in what and why?
   b. Draw the production possibility frontiers of England and Portugal if migration is illegal. Indicate the maximum gains from trade for each country.
   c. Draw the production possibility frontier of the world if migration is legal and if it is illegal.

2. **Mill without substitution—due at class meeting 3.**
   d. If everyone in the world consumes exactly one bolt of cloth for each cask of wine, which country will export how much of what (if migration is illegal)? What are the gains from trade for each country? Hint: *Can we figure out the equilibrium terms-of-trade without calculating the excess demand function(s)?*

3. **Mill with substitution—due at class meeting 4.**
   f. If everyone in the world spends exactly twice as much on wine as on cloth, which country will export how much of what (if migration is illegal)? Hint: *What utility function exhibits expenditure proportionality? What are the gains from trade for each country? Hint: Can we determine the equilibrium terms-of-trade without calculating the excess demand function(s)?*
   g. What does the answer to f tell you about the generality of Ricardo’s result that both nations gain from trade, compared to, say, the answer to d.?

4. **Heckscher-Ohlin—due at class meeting 5.**
Suppose that in England producing 1 cask of wine requires 4 workers and 1 unit of capital, and producing 1 bolt of cloth requires 2 workers and 5 units of capital.
   a. Graph the relationship between relative commodity prices and relative factor prices. You might try graphing using graph paper. (Assume r = 1; then do a few calculations with w = 1, 2, 3…) What theorem does this illustrate?
   b. Suppose the wage and rent in England each equal 100. What are the costs of wine and cloth? Suppose the wage and rent both increase to 110. By what percentage have the factor prices risen? What are the new costs of the two goods, and by what percentages have they changed? Answer the same questions if instead the wage increases from 100 to 120 and the rent from 100 to 105. What theorem does this illustrate? Explain.
   c. Suppose Portugal uses the same technology as England, and England has 100 workers and 160 units of capital, and Portugal has 100 workers and 70 units of capital.
      i. Calculate the outputs of wine and cloth in the two countries if they trade freely. Hint: *Draw the Edgeworth Boxes on top of each other. Then, exploit the full employment conditions [we don’t have demand] to find outputs.*
      ii. Which two theorems does this illustrate? Explain.
a. Over the past century, the productivity of farmers has risen substantially. What should have happened to their real wage? In what units is the real wage measured?
b. Over the same period, the productivity of barbers has remained constant. What should have happened to their real wage? In what units is the real wage measured?
c. Suppose workers can move freely between farming and barbering? What does this imply for the wages of farmers and barbers?
d. What do your previous answers imply for the price of haircuts relative to the price of food?
e. Who benefits from technological progress in farming—farmers or barbers?

6. **Trade Policy under Perfect Competition—due at class meeting 10.**
a. Compare a tariff to a tariff plus a production tax. Compare a tariff plus a production tax to a consumption tax. What do you conclude?
b. What is the quantitative relationship between the size of a tariff (or other tax) and the size of the associated welfare loss?
c. Until the 1990’s India had a highly protective trade policy. It imposed import quotas on many goods used as productive inputs. The quotas were allocated to firms in proportion to their productive capacities. What is the effect of such a quota allocation system on incentives, and on economic welfare? Compare to the welfare consequences of an exogenous tariff.