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 contemporary 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
Office hours: M, T afternoons, Rm. 104-S.
e-mail: fdweiss@jhu.edu

Prerequisites

Textbook, Readings

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

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

4b. Scale Economies and Imperfect Competition
Markusen, et. al., Chapters 11, 12.

5. Validity of the Heckscher-Ohlin Model
Bowen, Hollander, Viaene, Section 7.4, Testing the Factor Abundance Model, pp.218 to middle of 219, and from 228-231.

6a. The Gravity Model

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

7. Midterm Examination

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.

10a. Trade Policy Under Imperfect Competition
Markusen, et. al., Chapter 17.
10b. Effective Protection
    Handout and on Blackboard.

11. Preferential Trading Areas

12a. Firms in International Trade
Elhanan Helpman, *Understanding Global Trade, Harvard U Press*, 2011, Chapters 5, 6. Approximately equal to Chapter 5, Sections 5.1 and 5.2 of the 2010 draft
http://www.dems.unimib.it/corsi/678/altro/understanding_global_trade.pdf

12b. Evolution of the International Trading System


---

**Homework—6 per cent points each (incl. 2 \( \frac{2}{3} \) points free lunch)**

Students are encouraged to collaborate in study groups of three 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(s) 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.

5. The Specific Factors Model – due at class meeting 6. (from Mankiw, Macroeconomics, 5th ed., Norton, 2003). While these questions are indeed about the Specific Factors Model, they pertain to a closed economy. Thus,
   our pretty diagrams with prices given are of no help. Use the labor market equilibrium conditions with prices
   endogenous.
   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 quota.