See sample questions at bottom.

Introduction
Current trends in international trade, international production, international finance, and international development
The microeconomics framework
Resource scarcity and resource categories:
  - natural resources, physical capital, human capital, knowledge capital, and social capital
Types of economic choices societies face:
  - ownership decision, resource allocation decision, product output and mix decisions, and product distribution decision
Definition of microeconomics

Tools of Analysis
Economic variables, economic models, and functions
Linear equations (slopes, intercepts) and their use in the resource allocation problem
Opportunity cost
Nonlinear graphs
Totals, marginals, averages
Production possibilities frontiers and increasing opportunity costs of production

Supply and Demand Model
Circular flow diagram: households, firms, output markets, input markets
Household demand in output markets:
  - Quantity demanded and the "law of demand"
  - Changes in demand vs. changes in quantity demanded
Firm supply in output markets:
  - Quantity supplied and the "law of supply"
  - Changes in supply vs. changes in quantity supplied
Market equilibrium
Excess supply and excess demand

Elasticities
Ratio of percentage changes
Price elasticity of demand
Income elasticity of demand
Cross-price elasticity of demand
Price elasticity of supply
Inelastic, unit elastic, elastic
Inferior, normal, and luxury goods
Price ceilings and price floors
The price elasticity of demand and firm revenue
Allocative Efficiency and Taxes
Demand side
  willingness to pay, consumer surplus, and demand curve as MB curve
Supply side
  willingness to accept, producer surplus, and supply curve as MC curve
Allocative efficiency as a positive aspect of market systems
Analyzing a tax in the supply and demand model- deadweight loss

The Theory of the Firm
Perfect competition
Production function
Total, average, and marginal products of labor
The law of diminishing returns
Economic costs vs. accounting costs
The short run cost curves: TFC, AFC, TVC, MC, AVC, TC, ATC
The relationships among the short run cost curves
Revenue: total revenue and marginal revenue

The Theory of the Firm Continued
Short run:
  Short run profit maximization under perfect competition: MR = MC or P = MC
  MC as short run supply curve
  Break-even and shut-down points
Long run:
  Returns to scale: constant, increasing, decreasing
  Long-run average costs
  Long run profit maximization and the entry/exit decision
    Two long-run rules: P = LMC and P = LAC

Mid-term through here. Study hints:

  Make sure you are comfortable drawing all of the diagrams we have gone through so far in the class. Next, change things in these diagrams. For example, what happens in the PPF diagram when there is an improvement in technology? What happens in the supply and demand diagram when input prices increase? What happens to the profit maximizing point in the MC/AVC/ATC diagram when the price increases?

  Focus also on definitions. Can you define the elasticities? Can you define the cost concepts? Do you know how to calculate an elasticity?
**Limits of the Market System**

**Imperfect competition - monopoly**
- MR curve of monopoly
- Profit maximization of monopoly
- Inefficiency of monopoly
- Natural monopoly

**Policy responses**

**Externalities**
- Definition and types
- Inefficiency in presence of externalities
- Policy responses - taxes, tradable permits

**Public goods**
- Definitions
  - excludability and rivalry
  - private good, pure public good, club good, common property resource
- Free-rider problem

**Absolute Advantage, Comparative Advantage, and Intra-Industry Trade**

Introducing international trade into the supply and demand diagram:
- absolute advantage, the resulting pattern of trade, and the gains from trade
- Comparative advantage (either import or export in a sector)
  - Sources of biases in PPFs - differences in technology and resource (factor) endowments
  - Diagrammatic analysis of movement from autarky to inter-industry trade
  - Specialization in production and the gains from trade

**Intra-industry trade (both import and export in a sector)**
  - Horizontal vs. vertical (fragmentation)
  - Diagrammatic analysis based on product differentiation
  - The easier adjustment to increased trade than in the case of inter-industry trade

**Trade Politics and Policy**

- Heckscher-Ohlin theory based on factor endowments
- The Stolper-Samuelson theorem
- North-South trade and wages
- Role of specific factors in trade politics
- Analysis of a tariff, including the terms-of-trade effect
- Analysis of a quota, including difference between domestic-allocated and foreign-allocated quota rights

**The WTO and Regional Trade Agreements**

- Nondiscrimination: most-favored nation (border) and national treatment (behind border)
- Agreement on Agriculture
- Agreement on Textiles and Clothing
- General Agreement on Trade in Services
- Agreement on Trade-Related Aspects of Intellectual Property Rights
- Dispute Settlement
Preferential/Regional trade agreements (PTAs/RTAs)
  Free trade areas and customs unions
  Trade creation and trade diversion

*Foreign Direct Investment*
Definition of FDI
Modes of foreign market entry
Motivations for FDI
Value chains and multinational value networks
Firm-specific assets, firm-level economics, and internalization
Intra-firm trade
Global production networks and fragmentation
OLI Framework
**Sample Question for Supply and Demand**
Consider a market for a product with a price floor in place. The price floor is at a price of 20, the quantity demanded is 50, and the quantity supplied is 150.

Draw a supply and demand diagram illustrating the above situation, including the excess supply.

Next suppose that the price floor is reduced to 15. Suppose also that $E_p^s = 1.0$ and that $E_p^d = -0.5$. What will be the new level of excess supply? Please show your work.

Hint:

Supply side

$$1.0 = \frac{\Delta Q}{150 - 50}$$

Demand side

$$-0.5 = \frac{\Delta Q}{50 - 50}$$

In both cases, solve for $\Delta Q$ to get the change in quantity on each side of the market. The changes in quantity, along with the original quantities, give you the new quantity.

**Sample Question for the Theory of the Firm**
This question concerns a profit-maximizing firm operating in the short run in a perfectly-competitive industry.

Use four graphs (ATC, AVC, MC, and MR) to depict the firm in the case of positive economic profits. Label the profit rectangle.

Use four graphs (ATC, AVC, MC, and MR) to depict the firm in the case of profits on operation. Label the profit-on-operation rectangle.

Please state the profit maximization rule that you used in the above two diagrams.
Sample Question on Market Failure

This question concerns a natural monopoly.

Please draw a diagram for a natural monopoly consisting of a demand curve, a marginal revenue curve, and an average cost curve.

Please identify the profit-maximizing level of output for the natural monopoly and explain why this is such a level of output.

Please assess this profit-maximizing level of output from a public policy standpoint. Is it where we would like to be? Why or why not?

Please offer suggestions for how a government might modify the above outcome and why it might do so.

Sample Question on Comparative Advantage

Consider two countries, Korea and Malaysia, and two goods, lumber and automobiles. Korea’s PPF is biased towards automobiles, and Malaysia’s PPF is biased towards lumber.

Draw the PPFs of both countries with lumber on the horizontal axis and illustrate the autarky equilibria in both countries given our strong assumption about preferences (e.g. consumption in both countries always lies on the same line from the origin).

If K denotes Korea, M denotes Malaysia, L denotes lumber, and A denotes automobiles, use \((P_L/P_A)^K\) and \((P_L/P_A)^M\) to describe the pattern of comparative advantage.

In a new pair of PPF diagrams, illustrate the trading equilibrium with \((P_L/P_A)^W\). For both countries, illustrate the production point (B), the consumption point (C), the quantity of imports, and the quantity of exports.