Final Exam Guide

I. Exam Rules

a. Exam in 145 Dwinelle, 10:00-12:00
b. No blue books required.
c. No text, notes, calculators allowed.
d. Sit in section for your GSI. Seating Chart online & on overhead at exam.
e. Arrive Early, sit toward middle. If you need aisle seat, stand in aisle when others need to pass you
f. Begin only when told to start. Stop when told to stop. Pass exam to GSI.
g. If fire alarm rings, collect your things, follow your GSI to steps of Dwinelle to take exam.

THE FINAL EXAM IS COMPREHENSIVE. Topics are those covered in lecture and section during weeks 1 through 8. Review lecture slides/notes, problem sets, midterm exams, past final exam and section notes.

II. Types of Questions You Can Expect To See With Very High Probability!!!

Not an absolute guarantee. Very Likely. This is just a guide.

15/20 Point

1) Trade (tariffs/quotas)
2) Flexible Exchange Rates (Demand & Supply)
4) Supply & Demand & Elasticity
5) Welfare Analysis (tax, price ceiling, price floor)
6) Perfect Competition
7) Remainder: other topics from course

5/10 Points

1) News Analysis (like on past final exam)
2) Regulation of natural monopoly
3) Regulation of pollution (standard vs tax vs permit). Good idea to know how the lecture problem was done, but you won’t get a numerical problem on exam.
4) Coase Theorem
5) Monopoly
6) Monetary policy (under open economy, open market operation, FED reaction function/Taylor Rule)
7) Fiscal Policy
8) Basic Keynesian Model
9) Remainder: other topics from course

Use Course Topics Outline (IV below) for guide on definitions coverage
III. Problems to Review

1) Past Final (Fall 2002)
2) Summer 2003 Midterms
3) Summer 2003 Lecture Problems
4) Summer 2003 Problem Sets

Note: Section Problems are important but since coverage varies, I ask you to focus on the above for review. If you have time, go back & review section notes too.

IV. Course Topics Outline

Chapter 1

1) Economic Surplus
2) Opportunity Cost
3) MB=MC rule

Chapter 2 & 16

1) Construct PPF
   a. Calculate OC
   b. Draw PPF
   c. Interpret vertical intercept, horizontal intercept, changing slope
2) Comparative vs absolute advantage
3) Gains from specialization

Chapter 3

1) Change in quantity demanded or supplied vs Change in demand or supply
2) Demand shifters
3) Supply shifters
4) Equilibrium price and quantity

Chapter 4

1) Price elasticity of demand
2) Cross price elasticity of demand (sign)
3) Income elasticity (sign)
4) Price elasticity of supply
5) Perfectly inelastic vs perfectly elastic (demand, supply)
6) Elasticity changes along linear demand
7) Elasticity and total revenue

Chapter 5

1) Utility maximization
   a. Rational spending rule
   b. Law of diminishing marginal utility
2) Market demand (horizontal sum)
Chapter 6

1) Profit Maximization
   a. Step 1: Output decision $P = MC$
   b. Step 2: SR Shutdown decision, operate if $P > \text{Min AVC (TR > TVC)}$
   c. Note: If $P > \text{Min AVC}$ and Loss operate in SR, exit in LR

2) Perfectly Competitive Firm Assumptions

3) Variable Cost and Fixed Costs

4) Marginal Cost, Average Variable Cost, Average Total Cost
   a. Graphical and Numerical
   b. Calculation of Profit/Loss

5) Market Supply (horizontal sum)

6) Producer Surplus

Chapter 8

1) Economic Profit
   a. Economic costs include opportunity costs
   b. Economic costs = explicit plus implicit
   c. Another name for opp cost is implicit cost.
      i. labor
      ii. land
      iii. capital

2) Profit/Loss and Entry & Exit leads to zero economic profit in LR

Chapter 7

1) ED/ES Again
   a. excess demand : quantity supplied exchanged on market
   b. excess supply: quantity demanded exchanged on market

2) Analysis with producer and consumer surplus
   a. price ceiling
   b. price floor
   c. tax
   d. subsidy

Chapter 9

1) Monopoly (sources of market power/reasons for monopoly)
2) Perfect vs Imperfect competition (Demand curve facing individual firm)
   a. Monopolist D and MR curves
   b. Linear Demand: $P = a - bQ$ and $MR = a - 2bQ$

3) Profit Maximization Decision

4) DWL from monopoly
   a. $MB > MC$ at profit max output
   b. $Q_m$ lower than $Q_{pc}$

5) Natural Monopoly
   Everywhere declining ATC (AC) => $MC$ below ATC everywhere, ie in relevant range of output

6) Price discrimination
Chapter 10

1) Elements of Game (player, payoff, strategies)
2) Dominant Strategy
3) Nash Equilibrium
4) Prisoner's Dilemma (individual rationality vs socially optimal outcome)
   a. Classic prisoner's problem
   b. Rival oligopoly firms
   c. Cartel (colluding firms)

Chapter 12

Lemons model

Chapter 13

1) Labor as derived demand (Value Marginal Product)
2) Labor Market (Demand & Supply & Wage)
3) Wage in unionized vs non-unionized market

Chapter 11

1) Positive and Negative Externality
2) Social vs private optimum
3) Coase Theorem

Chapter 15

1) Types of goods (rival/nonrival, excludable/nonexcludable)
   a. private
   b. public
   c. commons
   d. collective
2) Demand for public good
3) Classic Problems
   a. Public good: Free Rider
   b. Commons Good: Tragedy of Commons

Chapter 16

1) PPF and consumption possibilities (fig 16.4, 16.5)
2) Graphical presentation (fig 16.6-16.9)
   a. Import, Export (ED/ES)
   b. Tariffs (winners/losers)
   c. Quotas (winners/losers)

Chapter 18:

GDP
i) Market value definition (page 447, not in required reading)
a. final goods and services
b. produced within a country during given time period
ii) Expenditure method (focus for class)
iii) Nominal vs Real GDP (Skip section “GDP and the Incomes of Capital and Labor”)

Unemployment
i) Labor Force (and working age population)
ii) Unemployment rate
iii) Participation rate
iv) Understated employment (disguised unemployment)
v) Costs

Chapter 19

Inflation
i) definition
ii) how to measure (eg. use CPI)
iii) CPI bias (quality adjustment, substitution)
iv) Costs

Real Variables
i) real GDP (Chapter 18)
ii) real wage
iii) real interest rate (unexpected inflation, Fisher effect)
iv) indexing

Chapter 20

Productivity & Growth
i) Economic growth (review compounding)
ii) \( Y/\text{Pop}=Y/N \times N/\text{Pop} \) Equation
   a. Real GDP per capita \( Y/\text{Pop} \)
   b. Average productivity of labor \( APL = Y/N \)
iii) \( Y/N \) determinants
iv) Policies to promote growth

Chapter 21

Review of Demand for Labor via exercise 21.3

Types of Unemployment
i) Frictional
ii) Structural
iii) Cyclical

Chapter 22

1) Saving, National Saving, Public and Private saving
2) Saving as flow, wealth as stock, Changes in Wealth
3) Why people save; impact of \( r \) on savings
Factors that affect I; impact of r on investment (recap page)
S and D for savings and investment (S=I in closed economy)
S & D for funds (S & I), shifts of S and D

Chapter 24

1) Stocks & Bonds
   i) Purpose
   ii) Bonds (Coupon rate(yield), Inverse Relation between bond price & current interest rate)
   iii) Stocks Price (expected return on dividends & capital gains, risk premium, inverse relation between price and interest rate)

2) International capital flows
   i) NX+KI=0
   ii) S+KI=I (Shifts of KI, augments ideas on shifts of S & I above)

Chapter 25

1) Potential output
2) Output gap
   a. recessionary
   b. expansionary

3) Natural rate of unemployment
4) Okun’s Law

Chapter 26

1) AD: planned vs actual spending (change in inventory)
2) Consumption Function and MPC
3) Autonomous vs Induced spending
4) Keynesian Model
   i) Key assumption
   ii) Keynesian Cross Diagram
      a) Shifts in AD
      b) Equilibrium Output
      c) Potential Output
      d) Gaps (recessionary/expansionary)

5) Income-expenditure multiplier

Chapter 23 & 27

1) Fractional Reserve banking
   a. Required Reserve Deposit Ratio
   b. Money Supply (M1)
2) Federal Reserve (FED)
   i) Buying/Selling Bonds (Open Market Operations)
      a) Relationship between Price of Bonds and Interest rate
      b) Money D & S (equilibrium, shifts, stabilization by FED)
   ii) Federal Funds Rate
3) Keynesian Model
   i) Keynesian cross, PAE as function of r
      ii) FED fights inflation, FED fights recession
3) Taylor Rule (predicts observed behavior of FED, whose decision making process is secret)
Chapter 29

1) Real Exchange Rate (formula: using e, P, P’)

2) Flexible Exchange Rates (SR)
   a) Demand (movement along, shift)
   b) Supply (movement along, shift)
   c) S&D Equilibrium (e*,Q*)

3) Flexible Exchange Rates (LR)
   a) Law of One Price
   b) PPP

4) Monetary Policy (r & e*)
   a) Flexible Exchange Rate
   b) Fixed Exchange Rate

5) Speculative Attack

Extension of Basic Keynesian Model

1) AD curve (Y vs π; each point is “SR equilibrium Y=AD point”)
   a) Movement Along (Downward sloping, Fed Reaction Function held fixed)
   b) Shift
      i) Autonomous AD change
      ii) Fed Policy Reaction Function Shift (Tightening, Easing)

2) Short-run Aggregate Supply SRAS (line at π)

3) Long-run Aggregate Supply LRAS (line at Y*)

4) Equilibrium
   a) Self Correction (SRAS shifts)
   b) Stabilization Policy
      i) Monetary (change r at given π, i.e. Fed reaction function shift; shifts AD)
      ii) Fiscal (change G, T; shifts AD)

Determinants of Inflation

a) Output Gap (eg. Military buildup)
b) Aggregate Supply shocks
   i) SRAS (eg oil price increase)
   ii) LRAS (eg Increase in Productivity, Terrorism)