

MSFE Comprehensive Exam Learning Objectives & Exam Hints

General hints for studying for the MSFE comprehensive exam

- The faculty members are looking not just for comprehension of ideas but also analysis and synthesis of the concepts at a *master's level*.
- Focus your studying based on the MSFE learning objectives
 - qualitative issues in economics
 - quantitative issues in economics
 - qualitative issues in finance
 - quantitative issues in finance
 - international issues in economics and finance
 - corporate governance and ethical issues in economics and finance
- Think about the big ideas in each of the classes. For example, microeconomics is divided into consumer behavior and producer behavior while corporate finance is concerned with the creation, measurement and distribution of shareholder wealth.
- At the end of each class, create a summary of the main ideas, applications and techniques. Use this to guide your studying for the comprehensive exam.
- Reread an undergraduate intermediate textbook. All the concepts are presented and it is a good way to review the material quickly.
- Show what you know about the topic in the question.
 - You might want to refer to articles used in the classes and to current events.
 - If the question can best be answered by drawing a graph, please do and then discuss the graph.
 - Use examples from your field classes to show how the fundamental concepts are applied to the various areas within economics and finance.
 - Know the jargon and use it in your answers.
- Do not spend all your time on one question and then hurry through the other questions. Divide the number of questions (which differs each semester) into the total time. Spend just short of that amount of time on each question and then use any extra time to expand. Each grader expects that you spent time on each question so you need to provide an adequate answer of appropriate length.
 - For example, if the exam has seven questions to be completed in four hours, spend thirty minutes on each question and then use the final thirty minutes to complete any answers.
- Know the formulas for finance and show your work. Know the graphs for economics and label them. Then explain what the answer means. Incorrect formulas and graphs are not acceptable.
- Get together with other people and quiz each other on the topics.

Theoretical Integration - Economics

Overall consumer/market behavior - Demand, supply, equilibrium, elasticity

Consumer preference - Price and income changes, indifference curves, budget lines, substitution and income effect

- Be able to make predictions about consumption and investment using a household's multiyear budget constraint.

Producer theory - Production, cost and profit functions; isoquant and isocost curves; and returns to scale.

Market structures - Competition, monopoly, monopolistic competition and oligopoly

Economic growth - Convergence, conditional convergence, and endogenous growth

Macroeconomic variables – Inflation, unemployment, gross domestic product, productivity, interest rates, taxes

Fiscal policy and monetary policy – Institutions, actions, effects (short run and long run), government deficits vs. surpluses, inflation vs. unemployment, rules vs. discretion

Economic fluctuations - Be able to trace the effects on relevant macroeconomic variables of various shocks (especially monetary) within the equilibrium (or real) business cycle model, the price misperceptions model, and the new Keynesian model. Be able to describe the effects of monetary and fiscal policy within the framework of each model.

Policy implications - Describe macroeconomic policy prescriptions across all areas of macroeconomics. Consider income and substitution effects. Consider multi-year budget constraint. Consider effect on firm sales, profits and stock price. What are the conditions needed for good policy?

Quantitative Integration - Economics

Consumer's optimality problem: Given information, such as the individual's utility function, level of income, goods purchased over the relevant period, and the prices of those goods, be able to determine how the consumer allocates his or her limited income across the two goods.

- You should also be able to display this information graphically; this includes being able to calculate intercepts, slopes, etc...
- Furthermore, recall that any graph should be able to stand on its own if all curves and axes are properly labeled.
- You should understand (i.e. be able to calculate and interpret) the slopes of the budget constraint and indifference curve.
- You should also know what is true of them at the optimal point (i.e. know the optimality condition).

Producer's optimality problem in both short run and long run: This includes being able to set up, and derive information from, the firm's constrained optimization problem, and/or the profit function. Given information, such as the firm's production function, prices of the relevant resources, be able to determine the producer's profit maximizing decisions. Including

- The optimal level of inputs
- The profit maximizing quantity
- The optimal price level
- Determine and interpret the returns to scale exhibited by the firm.

Calculus – derivatives, Lagrangian, optimization

Theoretical Integration - Finance

Shareholder Wealth Maximization—Premise, problems, strengths, and variations in application due to different cultures, markets and political environments.

Capital Budgeting—Current practices, potential problem areas, basic premise for use, and modifications such as real options and adjustments for project risk.

Quantitative Integration - Finance

Stock Analysis - Top-down analysis of the stocks including macroeconomic conditions, industry factors, stock specific factors, stock type considerations, and stock valuation analyses. Be able to present mathematically the expected returns of the stocks using different valuation methods and to justify your conclusions and client recommendations.

Capital Budgeting – Basic techniques and methods of analysis used in contemporary capital budgeting. Show the link between these methods and capital structure. Include estimation of relevant risk-adjusted cash flows.

Capital Structure – Discuss the methodology of determining an acceptable debt-equity mix for a given company including consideration of operating risk and dividends.

Business Ethics

Value Distribution & Corporate Governance —Considerations for creating and distributing value to shareholders. Equity price increases, dividends, share repurchases, asset liquidations and any other issues related to the rewards received for using shareholder funds.

Ethical Decision-making – Ethics affects how decision makers view the economy – how it works and how it should work. Economic institutions and policies affect people and firms differently, and thus, ethical evaluations, in addition to economic evaluations, are necessary.

Global Business Environment

International trade – Movement of factors of production, goods, services across borders; exports, imports, and economic growth; trade models and theories; fair vs. free trade

International finance – Exchange rate theories, movement of funds across borders, interest rate parity, international capital markets, foreign exchange intervention, and currency areas

International policy – Globalization, economic growth, sovereign debt, reaction to shocks, role of first world countries, international aid

Critical Thinking

Current topic – Given a current market or business situation, analyze the issues providing the rationale for both sides.