

Microeconomics Q Exam Syllabus

The qualifying exam in microeconomic theory is offered twice each year, in the spring and again in late summer. The ‘Q’ exam is not a final exam for the microeconomic theory sequence; nor is it the explicit goal of the courses to ‘teach the exam’. The exam covers the topics on the following outline. While students might expect that much of this material will be covered in Economics 609 and 610, not all of it will be, and the instructors may choose to devote time to topics not on the Q syllabus. Students are advised to clarify early on with their instructors what on this list will and will not be covered, so they can plan their studying accordingly.

1. Consumer Theory

Preferences and representation with utility functions

Budget sets

Revealed preference

Choice based on preferences and on utility

Demand functions—derivation (maximization) and properties of demand

Comparative statics

Duality—indirect utility, expenditure functions and Hicksian demand

Integrability

Consumer surplus

Aggregation and properties of aggregate demand

2. Theory of the Firm

Objective of the firm

Technology

Cost functions

Profit maximization

Input demand and output supply—derivation and properties

Duality—profit functions and cost functions

Aggregation

3. Decision making under Uncertainty

Objective uncertainty—probabilities as objects of choice

Objective expected utility representation

Risk aversion and measures of risk aversion

Insurance and gambling

Subjective uncertainty—Anscombe and Aumann structure

Subjective expected utility representation

4. General Equilibrium — Analysis

The existence problem

Welfare analysis — Pareto optimality

Comparative statics

Equilibrium of plans, prices and price expectations (Radner equilibrium)

5. General Equilibrium — Examples

Crusoe economies

Bilateral pure exchange

The 2×2 production model

Linear economies

State-preference equilibrium models of uncertainty

Intertemporal equilibrium

Overlapping generations models

6. Externalities and Market Failure

Public Goods

Information

Non-Convexities

Market Power

7. Non-Cooperative Games

The normal form

Domination and iterative dominance

Nash equilibrium