

The preparatory courses will focus on the following topics:

1. Quantitative methods (Mathematics and Statistics)

a. Mathematics

Functions and limits

Derivatives, differentiable functions

Introduction to functions of two variables and partial derivatives

Elements of linear algebra (matrix algebra and operations)

Integrals

b. Statistics

Definition of probability; axioms

Conditional probability and Bayes theorem

Random variables

Binomial distribution and Normal distribution

Law of large numbers

2. Macro and Microeconomics

a. Macroeconomics

National accounts

Macroeconomic equilibrium in closed and open economy

Aggregate supply and demand

Monetary and fiscal Policy

Unemployment

b. Microeconomics

Household consumption choice and market demand

Production, cost minimization, profit maximization and market supply

Market structure: perfect competition and monopoly

General equilibrium and efficiency