



Admission Test – Master’s Degree Programmes

Disciplinary Areas – Subject-Specific Questions

Economic Area Test

The 15 subject-specific questions may cover the following topics.

PUBLIC LAW, PRIVATE/COMMERCIAL LAW

Forms of Business Organization

- Sole entrepreneurs
- Partnerships
- Legal persons as a category (not their internal rules)
- Functional reasons for different forms (risk allocation, scale, investment)

Companies and Corporate Vehicles

- Separate legal personality
- Limited liability
- Rationale for corporate structure
- Distinction between owners and management
- Economic role of companies in markets

Ownership and shares

- Shareholding as a way to divide ownership
- Control
- Voting rights and influence
- Residual claims / profit sharing

Boards, Management and Decision-Making

- Allocation of powers and competences within the company
- Role and responsibilities of directors (including executive directors) and boards of directors
- Duties and liabilities

Fundamentals of Competition

- Competition and its economic importance
- Monopoly and market power
- Anti-competitive Agreements
- Abuse of Dominance



International cooperation

- Judicial cooperation
- Diplomacy
- Peaceful settlement of disputes

International protection of human rights

- Non-discrimination
- Human rights treaties
- Erga omnes obligations

The environment as the common heritage of humankind

- Precautionary principle
- Climate change
- Sustainable development

Economic and trade relations between States

- Economic sanctions
- Foreign direct investment
- Free trade agreements

The role of international organizations in the international community

- Peacekeeping
- Implied powers
- Humanitarian coordination

The European Union and the Single Market

- Freedom of establishment and services
- Primacy of EU law
- Free movement

MATHEMATICS, STATISTICS

Functions of one variable

- Functions: domain, range, graph; elementary functions and their transformations; composite and inverse functions
- Limits and continuity
- First-order and higher-order derivatives. Rules of differentiation. Their use in the study of functions and limits
- Determination of absolute and relative extrema
- Definite and indefinite integrals; basic integrals and main methods of integration (substitution, integration by parts)



Functions of two variables

- Functions: domain and graphical representations
- First-order and second-order partial derivatives
- Determination of relative extrema

Linear algebra

- Vectors and operations on vectors
- Linear independence and dependence
- Matrices: operations, determinant, inversion
- Systems of linear equations

Financial Mathematics

- Elementary financial operations
- Financial laws and interest regimes
- Equivalent interest rates
- Nominal interest rates
- Structure of prices and interest rates in capital markets
- Yield to maturity
- Compound financial operations
- Present value and accumulated value of an annuity
- Classification of annuities
- Problems relating to level annuities: determination of present value, instalment amount, number of instalments and interest rate
- Time indices and measures of variability
- Loans divided into bonds
- Bootstrapping techniques
- Undivided loans
- Loan value, usufruct and bare ownership
- Loan amortisation
- Elementary and financial approaches
- Amortisation methods
- Capital accumulation
- Evaluation and selection of economic and financial projects
- Net Present Value (NPV), Internal Rate of Return (IRR) and Modified Internal Rate of Return (MIRR) criteria

Descriptive Statistics

- Measures of location (means, median, quantiles)
- Measures of dispersion (standard deviation, variance)



Probability Theory

- Basic elements of probability theory (random experiments, events, axioms of probability)
- Conditional probability, independence of events, Bayes' theorem
- Univariate and bivariate random variables, expected values
- Main families of random variables (at least Binomial and Normal)
- Law of Large Numbers and Central Limit Theorem

Statistical Inference

- Point estimation and interval estimation
- Hypothesis testing
- Simple linear regression

ACCOUNTING, BUSINESS ECONOMICS AND FINANCIAL STATEMENTS

- Operation of the double-entry bookkeeping system
- Capital and income and the accrual principle
- Balance sheet and income statement items (fixed assets, equity, provisions for risks and charges, value of production, operating profit, etc.)
- Economic equilibrium and financial equilibrium
- Cost classifications (fixed and variable, direct and indirect)

MICROECONOMICS

Consumer Theory

- Consumer preferences and utility
- Consumer choice
- The theory of demand
- Uncertainty and consumer behavior
- Intertemporal choice

Production and cost theory

- Technology
- Profit maximization
- Cost minimization
- Cost curves

Perfect competition

- Perfectly competitive markets
- Firm supply and market supply
- Market equilibrium: Welfare analysis, tax incidence, price controls, and quantity regulation



Imperfect competition

- Monopoly
- Monopolistic competition
- Oligopoly
- Elements of game theory and strategic behavior
- Markets for factor inputs

Welfare economics, market failures and the role of government

- General equilibrium and economic efficiency
- Market failures: Externalities, public goods and asymmetric information

MACROECONOMICS

Macroeconomic data

- National income accounts
- The inflation rate
- The unemployment rate

Business cycle and macroeconomic policy in the closed economy

- Consumption and saving
- Investment
- Government budget deficits and the public debt
- Goods market equilibrium
- The multiplier
- The demand for money
- Money supply determination and monetary policy targets
- Asset market equilibrium
- Equilibrium in the goods and assets markets: The IS-LM model
- Fiscal and monetary policies in the IS-LM model

Inflation and unemployment

- Labor market equilibrium and the “natural rate” of unemployment
- The expectations-augmented Phillips curve
- The Okun’s law
- Macroeconomic policies, inflation, unemployment and expectations

Exchange rates, business cycle and macroeconomic policy in the open economy

- Balance of payments accounts
- Exchange rate regimes
- The IS-LM model for an open economy



- Fiscal and monetary policies with flexible exchange rates
- Macroeconomic policies with fixed exchange rates

Economic growth

- Saving, capital accumulation and output: The Solow growth model
- The golden-rule level of capital
- Demographic change, technological progress and economic growth

Political Science Area Test

The 15 subject-specific questions may cover the following topics.

PUBLIC LAW

- Constitutional bodies
- Relations between domestic law and international law
- Principles of the EU Treaties
- Regional and local autonomy
- Fundamental rights
- Constitutional principles governing public administration
- Forms of government
- Evolution of constitutionalism

POLITICAL SCIENCE, POLITICAL PHILOSOPHY AND CONTEMPORARY HISTORY

Political Science

- Theory of democracy according to Robert Dahl
- Origins of party systems in Europe according to Lipset and Rokkan
- Effects of electoral systems on party systems according to Duverger
- Theory of authoritarian and totalitarian regimes according to Linz
- Classification of public policies according to Lowi
- Pluralist and neo-corporatist models of interest group representation according to Schmitter
- Cartel party theory according to Katz and Mair

Political Obligation

- The Anarchical Challenge
- Contractarianism
- Democracy
- Fair Play
- Samaritanism
- Consequentialism



- Membership/Associative duty
- Natural Duty

Distributive Justice

- National and Global Justice
- Utilitarianism
- Egalitarianism
- Prioritarianism
- Sufficiencyarianism
- Desert Theory

International Political Theory

- International political theory, international relations, international law: connections and differences
- Global justice and the international order
- Human rights
- Multicultural issues
- Just war, humanitarian intervention, and refugees
- Global migrations
- Environmental issues (global climate change and the Anthropocene)
- Global, international and regional institutions
- Global democracy
- Global trade
- AI and technology
- Gender/Intersectionality
- Statist vs Cosmopolitan accounts of global justice
- Legitimate authority of non-state groups and Just War Theory
- Transitional Justice
- Historical Injustices

Contemporary History

- Formation of nation-states
- The interwar period and the rise of authoritarian regimes
The rise of Fascism and Nazism
- The First and Second World Wars
- Post-war reconstruction of the main Western political systems
- European integration
- The Cold War and the evolution of the bipolar international system (1947–1989)
- Neoliberalism in practice: Reaganomics and Thatcherism
- Nationalism and populism in the post–Cold War era



- Stalinism
- The international order from the fall of the Berlin Wall to the present
- Russian/Bolshevik Revolution (1917)
- Decolonization
- Transition to Democracy in Southern Europe (1970s)
- Migrations in the Twentieth Century

STATISTICS

Descriptive Statistics

- Measures of location (means, median, quantiles)
- Measures of dispersion (standard deviation, variance)

Probability Theory

- Basic elements of probability theory (random experiments, events, axioms of probability)
- Conditional probability, independence of events, Bayes' theorem
- Univariate and bivariate random variables, expected values
- Main families of random variables (at least Binomial and Normal)
- Law of Large Numbers and Central Limit Theorem

Statistical Inference

- Point estimation and interval estimation
- Hypothesis testing
- Simple linear regression

MICROECONOMICS

Consumer Theory

- Consumer preferences and utility
- Consumer choice
- The theory of demand
- Uncertainty and consumer behavior
- Intertemporal choice

Production and cost theory

- Technology
- Profit maximization
- Cost minimization
- Cost curves

Perfect competition



- Perfectly competitive markets
- Firm supply and market supply
- Market equilibrium: Welfare analysis, tax incidence, price controls, and quantity regulation

Imperfect competition

- Monopoly
- Monopolistic competition
- Oligopoly
- Elements of game theory and strategic behavior
- Markets for factor inputs

Welfare economics, market failures and the role of government

- General equilibrium and economic efficiency
- Market failures: Externalities, public goods and asymmetric information

MACROECONOMICS

Macroeconomic data

- National income accounts
- The inflation rate
- The unemployment rate

Business cycle and macroeconomic policy in the closed economy

- Consumption and saving
- Investment
- Government budget deficits and the public debt
- Goods market equilibrium
- The multiplier
- The demand for money
- Money supply determination and monetary policy targets
- Asset market equilibrium
- Equilibrium in the goods and assets markets: The IS-LM model
- Fiscal and monetary policies in the IS-LM model

Inflation and unemployment

- Labor market equilibrium and the “natural rate” of unemployment
- The expectations-augmented Phillips curve
- The Okun’s law
- Macroeconomic policies, inflation, unemployment and expectations



Exchange rates, business cycle and macroeconomic policy in the open economy

- Balance of payments accounts
- Exchange rate regimes
- The IS-LM model for an open economy
- Fiscal and monetary policies with flexible exchange rates
- Macroeconomic policies with fixed exchange rates

Economic growth

- Saving, capital accumulation and output: The Solow growth model
- The golden-rule level of capital
- Demographic change, technological progress and economic growth