

PhD in Economics XXXI Cycle

As indicated in the Call for Application, Candidates are required to submit a research proposal to be carried out over the three years, in one of the subject matter of the PhD curricula. The proposal should clearly outline the aims, methodology, expected results and reference literature.

As it is specified in the Call for Applications, the interview “will regard subject matter pertaining to PhD curricula and will also aim at verifying the candidate’s aptitude towards research, his/her availability to spend research experience abroad as well as the scientific interests of the candidate”.

As concerns the subject matter pertaining to PhD curricula, some basic knowledge is required and may be verified during the interview. Here below the candidates can find a list of topics and/or suggested readings.

Curriculum "Quantitative methods for Economics"

Calculus

- Functions (Existence, Limits, Monotonicity, Local and Global extremes, Convexity)
- Linear Algebra (Vectors, Matrices, Linear Systems)
- Riemann Integrals in one dimension

Financial mathematics (not strictly required, but welcome)

- Interest Rates
- Time value of money (Discounting Laws, Present value, Future value, Net present value)
- Internal rate of return
- Annuities, Perpetuities and their present value
- Loan tables (Amortization calculations)

Statistical inference

- Probability Theory. Random variables (r.v.), distribution functions,
- Density and Mass Function. Expected values and variance.
- Most important r.v.'s: Bernoulli, binomial, normal, t-Student,
- chi-squared, F-Fischer.
- Law of large numbers. Central Limit Theorem.
- Basic concepts of random sampling.
- Point and interval estimation.
- Hypothesis Testing
- Linear regression model with one covariate.

Curriculum "Economics and institutions"

Microeconomics:

- average and marginal costs
- production function, marginal and scale returns
- economics of scale and scope
- profit maximization

- perfect and imperfect competition

Suggested readings:

W. Morgan, M. Katz, H. Rosen, "Microeconomics", McGraw Hill

L. Cabral (2000) Introduction to Industrial Organization, The MIT Press, Chapter 2, 5, 6, 7

Macroeconomics and Economic Policy

- economic cycles and economic policy
- monetary and fiscal policy
- sustainability of public debt
- financial crisis
- uncertainty, risk and expectations
- New Keynesian Economics and New Classical Macroeconomics
- labour market theories and policies
- growth and development

Suggested reading

O. Blanchard, D.W. Johnson (2012) Macroeconomics, Pearson, 6th edition.

B. Snowdon, H. R. Vane (2005) Modern Macroeconomics. Its Origins, Development and Current State, Edward Elgar

Curriculum "Economics and Business"

Accounting

- l'economia aziendale, l'azienda ed i soggetti aziendali;
- la gestione d'impresa, i finanziamenti e gli investimenti e le dinamiche economiche e finanziarie;
- gli equilibri economici e finanziari ed il rischio d'impresa;
- le aree funzionali d'impresa;
- il bilancio di esercizio ed i suoi principi generali di redazione;
- lo stato patrimoniale, il conto economico e gli altri documenti allegati;
- i criteri di valutazione delle poste di bilancio.

Suggested reading:

R. Libby, P.A. Libby, D.G. Short, Financial Accounting, International Edition, McGraw-Hill, 2011

Management

- Lo sviluppo delle imprese: strategie e modelli di crescita
- Le strategie di turnaround e di fronteggiamento della crisi
- Le scelte di progettazione organizzativa
- La valutazione e le performance delle imprese
- Responsabilità sociale e sostenibilità
- La logistica ed il supply chain management
- Il marketing

Suggested reading:

Besanko, D., Dranove, D., & Shanley, M. (2000). Economics of Strategy. John Wiley&Sons. *New York*.