

ECONOMICS AND ECONOMIC HISTORY

Professor and Head of Department

GCG Fraser MCom (Rhodes), PhD Agric (Stell)

Professor

H Nel, BCom, HEU (UOFS), DCom (UPE, now NMMU)

JD Snowball, PhD (Rhodes)

Professor Emeritus

GG Antrobus, MSc(Agric) (Natal), PhD (Rhodes)

Food Chair in Investments

AP Faure, PhD (Stell)

Associate Professors

GR Keeton, PhD (Rhodes)

TE Mutambara, PhD (Rhodes)

Senior Lecturers

NS Cattaneo, MSc (Rhodes)

DCA Fryer, MSc (Natal)

D Bekker, DCom (UNISA)

F Botha, BCom (Law), BCom (Hons)(Economics),

MCom (Applied Econometrics) (UFS)

RA Stuart, BCom (Hons) (Rhodes), MSc (Glasgow),

AIBS

J Marire, MA (Econ) (Malawi)

Lecturers

T Friderichs, MCom (Rhodes)

K Brock, MCom (Rhodes)

J Hoveni, MCom (Financial Markets) (Rhodes)

DV Tarentaal, BCom (Hons) (Rhodes)

STRUCTURE OF COURSES AND RULES

Economics is a three-year major subject which may be studied for degree curricula in the Faculties of Commerce, Humanities and Science. One, or in some cases two, courses in Economics are allowed as credits for degree/diploma curricula in the Faculties of Education and Law. Post graduate studies in Economics are available through Honours, Master's and Doctoral degrees.

Economics 1 consists of TWO one-credit courses (1 per semester):

CODE	COURSE	SEMESTER OFFERED
ECO 101	Microeconomics	1
ECO 102	Macroeconomics	2

Economics 2 consists of TWO one-credit courses (1 per semester):

CODE	COURSE	SEMESTER OFFERED
ECO 201	Microeconomics	2
ECO 202	Macroeconomics	1

Economics 3 consists of FOUR half-credit courses from the following list:

*CODE	COURSE	SEMESTER OFFERED
ECO 312	International Trade Theory & Policy	1
ECO 313	Public Finance	2
ECO 314	South African Economy	2
ECO 315	Econometrics	2
ECO 316	Money, Banking & International Finance	1
ECO 317	Environmental Economics	1
ECO 318	Mathematical Economics	2
ECO 319	Any other paper approved by the Department	

Economics 3B consists of TWO half-credit courses (normally one per semester) from the list under Economics 3. Students registered for both Economics 3 and Economics 3B would take 6 courses (three per semester) in total.

Econometrics is strongly recommended for students planning to do Honours. The department reserves the right to offer second and third year courses in either Semester 1 or Semester 2 and to withdraw any of the third-year courses.

Admission Prerequisites

Course	Admission prerequisite
ECO 201,202	Economics 1 or ECO 101 & ECO 102
ECO 311,312,313, 314, 315, 316, 318	Economics 2 or ECO 201 & ECO 202
ECO 317	ECO 101

In addition to the above admission prerequisites, students are normally only allowed to register for third-year courses after successful completion of a

total of 14 semester credits.

ECONOMICS HONOURS consists of a research project plus EIGHT courses from the following:

Compulsory Courses

CODE	COURSE	SEMESTER OFFERED
ECO 401	Research project	1 & 2
ECO 418	Microeconomics	1
ECO 403	Macroeconomics	1

Elective Courses

SIX courses are selected from the following list:

*CODE	COURSE	SEMESTER OFFERED
ECO 402	Mathematical Economics	1
ECO 404	Econometrics	1
ECO 405	Monetary Economics	1
ECO 406	Growth and Technology	**
ECO 407	Financial Economics and Derivatives	2
ECO 408	Political Economy and Labour	2
ECO 409	Development Economics	2
ECO 410	Environmental and Resource Economics	2
ECO 411	Development of Capitalism in South Africa: history, theory and policy	**
ECO 412	Trade and Industrial Policy	2
ECO 415	Public Finance	2
ECO 416	Industrial Organization	**
ECO 417	Any other paper approved by the Department	

**Internal departmental codes only*

*** Not offered in 2015*

NB Not all the above courses will be offered in any one year. Economics Honours can only be taken fulltime.

TWO compulsory and TWO elective courses will normally be taken per semester. Examinations are written in June and November. The research project is completed over the whole year (full-time) and over 2 years (part-time) and should be handed in by 1 October in order to be examined in November. A student is permitted to take a paper from another department to the maximum weight of 0,2. Students who have not done Econometrics at the third-year

level, are allowed to take ECO 315 in lieu of one of the elective Honours courses.

INTERDISCIPLINARY HONOURS DEGREE IN DEVELOPMENT STUDIES

The degree consists of FOUR papers and a long research essay from participating departments.

MASTER'S DEGREE IN ECONOMICS

Master's degree by research thesis

This option is available to students wishing to pursue a clearly defined field of research and where such students have the ability to work independently.

Master of Commerce (Financial Markets) by Coursework and Dissertation

This degree is aimed specifically at a specialised career in the financial/banking sector. A minimum registration of 5 students is normally required for the degree to be offered.

The normal requirement for admission is an honours degree or a four-year degree, preferably with a strong background in Economics and/or Management.

Professional experience will also be taken into account.

The courses are structured with the above career in mind and are all compulsory. The degree consists of:

*CODE	COURSE	SEMESTER OFFERED
ECO 501	Thesis	1 & 2
ECO 507	Financial Institutions, Regulation and Monetary Policy	1
ECO 508 Paper 1:	Quantitative Finance	2
ECO 508 Paper 2:	Financial Econometrics	2
ECO 504	Debt & Foreign Exchange Markets	1
ECO 505	Equity & Derivative Markets	1
ECO 506	Portfolio Theory & Management	2
ECO 509	Financial Markets Industry Exams	1 & 2

**Internal departmental codes only*

DOCTORAL DEGREE

A PhD degree may be taken by research thesis. Acceptance of the candidate will depend on previous academic record, an acceptable research proposal and the availability of expertise in the department to supervise the project.

COURSE CONTENTS

ECO 101 - Microeconomics

Fundamental economic concepts; comparative economic systems; demand, supply and market equilibrium; elasticities of demand and supply; consumer behaviour; production and costs; price and output determination under competitive and monopolistic conditions. The South African economy, structure and development.

ECO 102 - Macroeconomics

National income accounts; index numbers; determination of national output, income and employment; money and banking; quantity theory of money; money, prices and output; unemployment; inflation; introduction to international economics.

ECO 201 - Microeconomics

The economist's view of human nature; preferences, budgets, and consumer equilibrium; income and substitution effects; the Chicago school; production, technology and costs. Fundamentals of market structure; general equilibrium and second best; asymmetric information; the South African labour market; oligopoly and oil; product differentiation (automobiles and airlines); globalization.

ECO 202 Macroeconomics

Measurement of macroeconomic variables; classical macroeconomics; the role of aggregate demand; money, interest and income; policy effects in the ISLM model; aggregate supply and aggregate demand; output, inflation and unemployment; the balance of payments and exchange rates; monetary and fiscal policy in the open economy; the Mundell-Fleming model; cases of imperfect and perfect capital mobility. Money and monetary policy; the role of the Central Bank; changing nature of monetary control; the budget and fiscal policy (functions of fiscal policy, expenditure issues, revenue issues, and debt and the deficit); internal balance (unemployment and inflation); external balance (the balance of payments); and the growth debate in South Africa.

ECO 312 - International Trade Theory and Policy

International trade theory: the classical (Ricardian) model and extensions; neoclassical trade theory and income distribution; technology theories of trade; the Linder theory; new trade theory based

on economies of scale and imperfect competition; economic growth and international trade. Trade policy: the instruments of trade policy and their effects; the arguments for protection; economic integration; trade and development; South Africa's trade policy and the World Trade Organization.

ECO 313 - Public Finance

Economic basis for investment activity; public versus private goods; externalities; government intervention in the market; financing of government expenditures; effect of taxation on the economy; the budget deficit; theory and structure of taxation; provincial expenditure and intergovernmental fiscal relations.

ECO 314 - South African Economy

South African economy in the 20th century; political economy of development; role of the state in industrialization; inward industrialization versus export led growth; changing labour relations; development in the financial sector; foreign direct investment; balance of payments and fiscal discipline; primary sector developments.

ECO 315 - Econometrics

The nature and scope of econometrics; basics of probability and statistics; the linear regression model: the two-variable model, estimation and hypothesis testing; multiple regression estimation, goodness of fit and hypothesis testing; functional forms of regression models: how to measure elasticity and the growth rate, reciprocal models; regression on dummy explanatory variables; regression analysis in practice: multicollinearity and heteroscedasticity; autocorrelation and spurious regression in economic time series data.

ECO 316 - Money, Banking and International Finance

Money and interest rates; the demand for money; interest rate behaviour; transmission mechanism; rational expectations theory (traditional, new classical and new Keynesian models); financial instruments and markets; central banking and depository institutions; foreign exchange markets and the balance of payments accounts (monetary, portfolio balance, price adjustments approaches to the external balance); national income and current account; the exchange rate systems and international monetary system, and macroeconomic policy in the open economy; contemporary issues;

macroeconomic policy in South Africa.

ECO 317 - Environmental Economics

Scope and development of environmental economics; a model of the economy and the environment; the economics of pollution; measuring economic impacts on the environment; resource economics; sustainable development; issues and applications.

ECO 318 and ECO 402 - Mathematical Economics

Analytic and mathematical models in economics; linear models; Leontief input-output analysis; optimisation - single and several variables with constraints; consumer theory; demand theory; expenditure minimisation; production theory; profit maximisation; equilibrium and its basic welfare properties; dynamical models of economic processes. Honours level includes: constrained optimisation, integration and applications.

ECO 401 - Research Project

A research project of limited scope (in the form of a journal article) on an approved topic in economics to be selected by 28 February, handed in by 1 October, involving either a theoretical analysis or an application of economics. Empirical work is strongly recommended. A presentation of the results is to be made at the Departmental postgraduate conference. Candidates are encouraged to present a paper at an economics conference.

ECO 403 - Macroeconomics

Overview: uneven development and hegemony in the global economy since 1873; Keynes in the 1920s and ‘the Marx in Keynes’; the Keynesian critique of Classical economics; The long run; The savings investment nexus and the East Asian model; The LM nexus and the global financial crisis; Dutch disease and premature deindustrialisation.

ECO 404 - Econometrics

Dynamic econometric modeling: distributed lag and autoregressive models, Granger causality; Time series econometrics: stationarity, unit root tests, cointegration, forecasting with ARIMA and VAR models; Simultaneous equation systems: simultaneous equation bias, the identification problem, indirect and two-stage least squares; Qualitative response models: LPM, logit and probit models; Panel data modeling: fixed versus random effects approaches.

ECO 405 - Monetary Economics

The monetary sector; money and credit; monetary theory (classical, Keynesian, portfolio models and post Keynesian); the demand for money; the transmission mechanism; the money supply process; theory and application of the definition of money; monetary policy; monetary control in South Africa; monetary vs inflation targeting.

ECO 406 - Growth and Technology

Technology and macroeconomic growth models; technical change and the economic system; the sources of innovation; the new manufacturing technologies; international differences in growth and technology; national systems of innovation; foreign direct investment and multinational corporations in developing countries; technology and industrial policy: government intervention in the market; South Africa: a case study.

ECO 407 - Financial Economics

Financial markets and the economy; portfolio theory; interest rate theory; capital market theory and the valuation of assets (the capital asset pricing model and arbitrage pricing); pricing of bonds and equities; the cost of capital, corporate finance and investment; money, bond and equity markets.

ECO 408 - Political Economy and Labour

A preliminary organising framework: US and South African segmentalism and Swedish solidarism; Economic determinism, class and social exclusion; Welfare regimes; Collective bargaining structures, class conflict, and macroeconomic considerations; Education and training systems and the ideological state apparatus; Workplace issues: voice, systems of pay, corruption; A revised organising framework: Smith and Marx.

ECO 409 - Development Economics

The meaning and measurement of development; theories of economic development: mainstream and alternative perspectives on development; structural adjustment programmes; the post-Washington consensus; globalisation; role of the state in development; the role of institutions in development; sustainable development; development in the 21st Century; the developmental state; South African economic policy in relation to development.

ECO 410 - Environmental and Resource Economics

The application of economic principles to the valuation of environmental services and of degradation; the Environmental Kuznets Curve; Global Warming; natural resource valuation issues; economic sustainability; the development of Environmental Economics and of Ecological Economics.

ECO 411 – The development of capitalism in South Africa: history, theory and policy

History: Global, historical and comparative dimensions; sectoral trends and history; Theory: Liberal and early revisionist perspectives; other radical alternative perspectives; Policy: Evolution of economic policies; Social policy in historical context; Policy, power and politics - economic policy challenges of the post-apartheid period: Economic policy options; Politics, ideology and power relations.

ECO 412 - Trade and Industrial Policy

Historical background on the role of the state in development; Trade theory under imperfect competition and the case for a strategic trade and industrial policy; Industrial policy and the role of the manufacturing and services sectors in development; The articulation between macroeconomic and industrial policies; Economic concentration, competition policy and industrial development; Public procurement; Intellectual property rights; Technology, foreign direct investment and industrial policy; The WTO, the Doha Round and the shrinking of development policy space; Regional integration, industrial policy and South-South economic cooperation.

ECO 414 - Derivatives, Financial Market Regulation and Efficiency

Types of futures contracts; pricing of futures and the futures market; options; pricing of options including the Black-Scholes model; the regulation of financial markets; banking supervision and financial market efficiency.

ECO 416 - Industrial Organization

Origins of industrial organisation: the principle of total costs, the active firm, transaction costs and the firm; Market entry barriers: product differentiation,

absolute cost advantage, economies of scale, imperfections in capital markets, other barriers; Market concentration: market share, concentration ratios, Herfindahl index; The theory of contestable markets; The market structure-conduct-performance (SCP) paradigm; Porter's five forces model; the Schumpeterian hypothesis; Behavioural theory of the firm; Evolutionary theory of the firm; Anti-trust laws/competition laws; Competition policy in South Africa; Alternative theories.

ECO 418 - Microeconomics

Introduction to game theory, oligopoly and bargaining; bounded rationality and private information; moral hazard and performance incentives; risk sharing and incentive contracts, rents and efficiency, ownership and property rights; production, information costs and economic organization; auction theory; intertemporal microeconomics; outlook on industrial organization and on recent developments in microeconomics.

ECO 504 – Debt and foreign exchange markets

Economics of the money market, its instruments, its functions and development; role of interest rates and monetary policy role of the central bank via the two interbank markets; risk-free rates and the relationship between money market rates and other interest rates; the microstructure of money market; international aspects. The bond market, its instruments, development, importance and international aspects; economics of the bond market; theory of pricing; term structure theories; emergence of the corporate sector in the bond market; role of the Bond Exchange of South Africa; microstructure of the bond market. The foreign exchange market; exchange rate theory and determinants; exchange rate systems; exchange rate policy in South Africa; participants, including importers, exporters, speculators, the foreign sector; microstructure of forex market; derivatives - hedging tools, such as the forex and currency swaps, forwards, futures.

ECO 505 – Equity and derivative markets

Equity market - primary and secondary markets; role of the regulator and the JSE as manager of the market; participants, mechanics of the market; microstructure of the equity market; theories of valuation of shares; efficiency of equity market; behaviour of prices; international aspects of the market. The financial derivatives market - forwards,

futures, options, swaps, hybrids such as swaptions, other such as weather and credit derivatives; valuation of derivatives; role of the exchange (Safex) and the regulator; use of markets – investors, hedgers, speculators, arbitrageurs; microstructure of the derivatives market.

ECO 506 - Portfolio theory and management

Macroeconomic analysis as it applies to financial markets; asset class analysis and strategic asset allocation as the first level of analysis; sector / industry analysis and security analysis; aspects of security analysis: financial statement analysis and ratio analysis; behavioural finance. Concepts, terminology and definitions in portfolio management; portfolio theory; modern approaches to portfolio management including resample efficiency; types of portfolio managers; asset classes; types of financial portfolios; life staging; portfolio monitoring including performance and risk attribution, statutory environment of the portfolio manager in South Africa.

ECO 507 - Financial institutions, financial regulations and monetary policy

This course is aimed at acquainting the student with the theories underlying the role of the financial system and institutions, financial regulation and monetary policy. The course is made up of three modules - financial institutions, financial regulation and monetary policy. The first module, financial institutions, covers asymmetric information and uncertainty, adverse selection and moral hazard, principal-agent theory, financial sector and macroeconomic performance, institutional aspects of financial sector development and private sector banking, operation and management of banks. The financial regulation module focuses on the theories and practice of financial regulation, drawing on South African experience. The third module focuses on the core theories underlying monetary policy formulation, analysis and implementation. The topics covered in this module are: central banking and monetary policy (goals, tools, targets, conflicts, independence and time consistency of policy); monetary aggregation; empirical models of money demand and money supply; theories of the interest rate; the monetary transmission mechanism; the international monetary system; and the practice of monetary policy formulation and implementation in South Africa, other developed and emerging market

economies.

ECO 508 – Quantitative techniques in financial markets

The overall aim of this course is to acquaint students with modern quantitative techniques used in solving financial problems in a dynamic and complex financial environment. The course is made up of two modules - financial mathematics and financial econometrics.

Paper 1: Quantitative Finance

This course contains an introduction to selected mathematical principles that can be applied to the valuation of plain vanilla and exotic contingent claims on assets traded in various markets. Topics covered include asset price dynamics in a deterministic and stochastic setting, the risk-neutral pricing technique and the application of the finite differencing method to contingent claim valuation.

Paper 2: Financial Econometrics

The financial econometrics component focuses on the application of statistical and econometric methods in financial analyses. The module covers: univariate linear time series models (AR, MA, and ARIMA, Box Jenkins approach, forecasting using ARIMA models); multivariate models (simultaneous equation models and vector autoregressive models); long-run relations models (unit root testing, cointegration, and the error correction model); volatility modelling and forecasting (ARCH, GARCH, EGARCH etc.); and simulation (Monte Carlo simulation, bootstrapping).

For more information, see the departmental website: <http://www.ru.ac.za/economics/>