ECONOMICS

Features of Interest

The Department of Economics occupies the second and third floor of Dunning Hall, and two wings in Mackintosh-Corry Hall. These premises provide classrooms, seminar rooms, and two computing labs, as well as conference facilities, graduate student study space and a reading room.

Queen's has a relatively decentralized library although most of what is of interest to economics students will be found in the Joseph S. Stauffer Library, directly across Union Street from Dunning Hall. Reserve readings are on the third floor of Stauffer and the Government Documents Unit is on the lower floor. Other specialized locations that may be of interest include the May Ball Library for policy studies and industrial relations, the Mathematics Library in Jeffery Hall and the Law Library (which has duplicate copies of some works in economics). An extensive collection of pre-publication discussion papers in economics is available in the Malcolm Urquhart Reading Room on the third floor of Dunning Hall.

Information and Technology Services (ITS) and the Economics Department (QED) together provide a wide variety of computing services that are accessible to Economics graduate students. The department has a small cluster of 16 workstations available through remote access running Linux. The department's computing representative provides assistance with many computing problems along with access to Department workstations. The Department maintains various software packages on these servers. (Matlab, Stata, OX, R) Workshops and seminars on internet tools, operating systems, and web publishing are available from ITS throughout the year.

Institutes

The John Deutsch Institute includes research groups devoted to several areas of economic policy. Through these groups the Institute sponsors conferences and workshops promoting both research and continued dialogue between academic economists and practicing policy-makers. These events are open to students. Also within the department, the Institute for Economic Research publishes a discussion paper series at a present level of about 20 to 25 new papers each year, and a regular program of staff/student seminars and workshops, active all year round, frequently brings economists of international repute to Queen's. Elsewhere on campus, the Industrial Relations Centre, the Institute of Intergovernmental Relations, and the School of Policy Studies all do work of interest to students of economics.

The Department also operates an active placement service to help its students obtain suitable positions as professional economists after graduation.

Financial Aid

Primary sources are described in the calendar section entitled Awards and Financial Assistance. (https://www.queensu.ca/academic-calendar/graduate-studies/awards-financial-assistance/) The department has some resources of its own from which to make awards for academic merit, but these awards cannot be so generous as those offered by Queen's and by governmental, industrial and other grant sources outside the University, and are not numerous enough to assure one to each successful applicant.

The Department offers many of its students teaching and/or research assistantships, which may be held in addition to a merit award, depending upon the award's conditions of tenure.

Admission to Programs of Study

Applicants for both the master's and doctoral programs are accepted under the general regulations of the School of Graduate Studies. Program of study and course choice are subject to the review and approval of the Graduate Coordinator.

Faculty

Head
Majumdar, S.

Coordinator of Graduate Studies
Zabojnik, J.

Professor
Bergin, J., Cotton, C., Ferrall, C. Head, A.C., Keay, I., Koeppl, T., Lapham, B.J., Lehrer, S., Lewis, F.D., Lloyd-Ellis, H., MacKinnon, J.G., Milne, F., Shi, S., Smith, G.W., Wang, R., Ware, R., Zabojnik, J.

Associate Professor
Garvie, D., T., Majumdar, S., Sun, A.

Assistant Professor
Abbott, B., Chan, M., Ichihashi, S., Ke,K., Liu, S., Xu, M., Zahur, N.

Professor Emeritus
Beach, C.M., Boadway, R.W., Carmichael, L., Courchene, T.J., Flatter, F., Gregory, A.W., Hartwick, J., McInnis, J.M., Usher, D.,

Adjunct Faculty

Amirkhalkhali, Y., Barber, M., Berkok, U., Chiu, J., Cromb, I., de Souza, R., Dogra, R., Hageman, Hickman, B., A., Kashi, B., Kennedy, M., Longworth, D., Xu, L., Zhu, Y.

Programs of Study

- Economics - Doctor of Philosophy (https://queensu-ca-public.courseleaf.com/graduate-studies/programs-study/economics/economics-phd/)
- Economics - Master of Arts (https://queensu-ca-public.courseleaf.com/graduate-studies/programs-study/economics/economics-ma/)
- Risk Policy and Regulation - Graduate Diploma (https://queensu-ca-public.courseleaf.com/graduate-studies/programs-study/economics/risk-policy-regulation-graduate-diploma/)

All courses are half-courses (3.0 credit units) with the exceptions of ECON 896, 898, 899 and 999. Not all courses listed are offered every year, Courses are usually offered in the fall or winter terms. In addition, an attempt is made to offer a few courses during the spring/summer term. More detailed information on course offerings can be obtained from the department.

ECON 810 Microeconomic Theory
This course provides an in depth review of theories of demand, production, general equilibrium, market failures and welfare economics. In addition, selected topics in decision theory and game theory will be covered.

ECON 811 Advanced Microeconomic Theory I
This course provides a brief review of demand and production, general equilibrium and welfare economics. Topics such as core equivalence and efficient provision of public goods may be considered in depth. In addition, the course provides a substantial introduction to cooperative and non-cooperative game theory and its applications. Intended for Ph.D. students.

ECON 813 Advanced Microeconomic Theory II
This course provides in depth coverage of current topics in microeconomic theory. Topics will be drawn from: general equilibrium with and without uncertainty; non-cooperative games; equilibrium concepts and refinements; applications of game theory to principal agent models and models of screening and signaling; correlated equilibrium; repeated games; cooperative games, bargaining, auctions, common knowledge, implementation, evolutionary games and theories of learning. Intended for Ph.D. students.

ECON 815 Macroeconomic Theory
The first half of this course discusses the computation of aggregate variables and introduces students to dynamic models of long-run growth: the Solow model, the neoclassical growth model, overlapping generations models, and endogenous growth models. These are used to study long-run policy issues and the determinants of cross-country differences in per capita income and growth. The second half of the course introduces the student to real business cycle models and to the micro-foundations of models of nominal rigidities and non-market clearing. These are used to study the nature of short-run fluctuations and to evaluate macroeconomic policies related to stabilization, inflation, unemployment and the public debt.

ECON 816 Advanced Macroeconomic Theory I
This course will focus on fundamental tools of modern macroeconomic analysis. Specifically, recursive methods and their uses in stochastic applied general equilibrium theory. These uses include applications of both life-cycle and infinite horizon frameworks to savings and consumption, economic growth, fluctuations, and financial markets. Intended for Ph.D. students.

ECON 817 Advanced Macroeconomic Theory II
This course will apply the tools learned in ECON 816 to further topics. Some emphasis will be placed on numerical methods and computation. The topics considered will normally include search and matching, monetary economics, income and wealth inequality, and fiscal policy. Other topics may also be considered. Intended for Ph.D. students.

ECON 820 Money in the Macroeconomy
A course which uses elementary stochastic processes in the study of asset pricing under rational expectations (interest rates and inflation, volatility, bubbles, risk premiums, term structures), the demand for money, evidence on money in business cycles, the optimal quantity of money, and monetary policy (targeting, rules, credibility) in theory and practice.

ECON 821 Money and Financial Markets
This course examines topics in the microeconomic foundations of money, financial markets and financial intermediation.

ECON 825 International Trade
A course in the pure theory of trade and the theory of commercial policy and their applications. Both positive and normative aspects are considered.

ECON 826 International Finance
Macroeconomic and monetary theory in an open economy including topics such as: capital flows and models of the current account; international risk-sharing; sovereign debt; real and nominal exchange rates; currency crises; and the choice of exchange-rate regime.

ECON 830 Economic Development in North America

Focuses on long-term aspects of economic development in Canada and the United States placed within the context of the international economy. The course centres on trends in population, income, and their distribution, and examines the processes which brought them about. Included in this analysis is an examination of Rostow's take-off thesis, the staples theory, and the growth accounting approach. Also included are such prominent issues as the roles of transportation, government intervention, migration and land settlement.

ECON 831 Issues in North American Economic History

A selection of issues is analyzed from the perspective of the new economic history as applied to Canada and the United States. Typically these would include the application of counterfactual conditional propositions, general equilibrium models, and economic theory to the study of institutional change. Offered jointly with ECON-430.

ECON 835 Development Economics
The first half of the course will focus mainly on microeconomic issues related to land and labor markets in the agricultural sector, credit markets and insurance, and duality. In particular, it will consider alternative views of the role and endogenous evolution of non-market institutions in the development process. The second half of the course will deal with several macroeconomic issues including rural-urban migration, the interactions between inequality and economic development, the interactions between population growth and technical change, and the contribution of internal factor accumulation versus TFP growth. The course will conclude with a conference in which students are expected to present and discuss recent papers in development economics. Offered jointly with ECON-435.

ECON 837 Cost-Benefit Analysis
A course covering the techniques and applications of cost-benefit analysis including project evaluation in the context of both developed and less-developed economies. Topics include: the welfare-economic foundations of cost-benefit analysis; investment decision rules; the choice of a social discount rate; risk and uncertainty; shadow pricing of inputs with and without distortions; and special problems of project evaluation. Other objectives such as income distribution and macro-economic goals are also considered. Offered jointly with ECON-437.

ECON 840 Public Economics I
Introduction to public economics with emphasis on public expenditure. The role of the public sector in the provision or regulation of private goods, public goods, shared goods, externalities and the redistribution of income. Deadweight loss and the marginal cost of public funds. Fiscal federalism.

ECON 841 Public Economics II
Normative and positive aspects of tax theory: optimal taxation and redistribution, more on the marginal cost of public funds, the theory of tax reform, the effects of taxation on markets for goods, labour and capital, tax incidence, intergenerational transfers.

ECON 845 Industrial Organization I
A discussion of the elements of market structure, market conduct, and market performance. Topics include: alternative theories of firm behaviour including sales revenue and growth maximization, concentration of industry, economies of scale, barriers to entry, advertising, mergers, research and innovation, and generally monopoly power and economic performance.

ECON 846 Industrial Organization II
Topics include: i) regulation: the theory of the firm, pricing policy, distortions, political economy; ii) competition policy: analysis of policy in light of behavioural models of specific practices; and iii) quantitative studies: emphasis on integration of analytic framework and empirical investigation.

ECON 848 Economic Analysis of the Law
This course introduces students to the central tools and concepts of law and economics. It focuses on the application of law and economics analysis across a number of substantive legal domains, that may include property rights, contract law, tort law, crime, corporate law, competition law, litigation and discrimination law. The course incorporates theoretical, empirical and behavioural approaches to the economic analysis of law.

ECON 850 Econometrics I
This course deals with the foundations of econometrics. Topics include the method of moments, the geometry of ordinary least squares, hypothesis testing and confidence intervals, nonlinear least squares, instrumental variables, generalized least squares, the generalized method of moments, and maximum likelihood. Intended for Ph.D. students.

ECON 851 Econometrics II
This is a course intended for specialists in econometrics. It deals primarily with the asymptotic distribution theory of nonlinear least squares, generalized least squares, the generalized method of moments, and maximum likelihood. Other topics include specification testing, binary response models, and simultaneous equations estimators. Intended for Ph.D. students.

ECON 852 Quantitative Methods

A first course in econometrics at the graduate level. Students are expected to have had at least one econometrics course at the undergraduate level, and to be familiar with matrix algebra and elementary statistics. A broad range of econometric models will be covered. (Offered jointly with ECON-450.)

ECON 853 Applied Econometrics
This course is an introduction to graduate level time series econometrics. The goal of the course is to provide a foundation in core time series methods that will permit students to undertake serious empirical work or pursue more advanced theoretical modeling. The topics include, but are not limited to, time series regressions, univariate and multivariate stationary time series models (ARMA and VAR models), forecasting, univariate and multivariate non-stationary time series models (trending data, unit roots, cointegration), and possibly some spectral analysis and generalized method of moments (GMM). The course focuses on time series methods that have been become popular and widely used in economics, and economic examples will often be used as motivation. PREREQUISITE: ECON 852 or equivalent.
EXCLUSION: Students who take ECON 953 for credit cannot take ECON 853 for credit.

ECON 855 Introduction to Mathematical Economics
Applications of mathematics to economic analysis. Topics covered will generally include a review of optimization techniques, including nonlinear and dynamic programming, applied to consumer and producer theory; comparative statics; the envelope theorem; duality theory; welfare economics; and general equilibrium theory. (Offered jointly with ECON-455.)

ECON 856 Static Optimization and General Equilibrium Theory
The first part of the course covers the basic optimization techniques used in static economic analysis and their application to a number of problems in economic theory. The second part of the course is devoted to static general equilibrium theory. The major emphasis is placed on the proof of the existence of a competitive equilibrium and the proof of the classical optimality properties of competitive equilibrium. Other topics which may be covered include the computation of equilibrium, non-Walrasian equilibrium theory, n-person game theory and its applications to economic models, monopolistic competition, the Leontief economy, the two-sector general equilibrium model, duality theory, index numbers and aggregation. PREREQUISITE: A university course in multi-variable calculus and linear algebra and a reasonably good knowledge of microeconomic theory.

ECON 857 Dynamic Economic Theory
Covers the mathematics used in dynamic economic theory and its application to a number of topics. These may include the stability of Walrasian and non-Walrasian economies, capital and growth theory, planning in developed and underdeveloped economies comparative dynamics, regulation and decentralization in mixed economies, the harvesting and extraction of reproducible and non-reproducible resources. PREREQUISITE: ECON 856 or permission of the instructor.

ECON 858 Experiments and Game Theory
The course will focus on the intersection of research in experimental economics and game theory. The dialogue between these fields has had an important influence on research topics for game theorists and on topics and methodology for experimentalists. There will be approximately equal weight on game theory and experimental methods and evidence. Game theory topics include evolutionary game theory, learning models, and the logic based models of knowledge and belief revision. The experimental topics will include design considerations and data analysis in the context of providing feedback for the development of the theory.

ECON 860 Empirical Micro-Economics I
The principal purpose of the course is to introduce students to contemporary empirical research in micro-economics. The course focuses primarily on the economics of household behavior, including labour supply, intra-household decision-making, marriage, fertility and search and matching models of labour and marriage markets. Equal attention is focused on the theoretical underpinnings of each subject, the empirical methods for testing the implications of micro-economic models and assessing the evidence that the application of these methods has produced.

ECON 861 Empirical Micro-Economics II
The principal purpose of the course is to introduce students to contemporary empirical research of micro-economics. The course focuses primarily on micro-economic models of human capital accumulation, duration analysis, signaling and agency problems. Equal attention is focused on the theoretical underpinnings of each subject, the empirical methods for testing the implications of micro-economic models and assessing the evidence that the application of these methods has produced.

ECON 870 Finance Theory
The course provides a detailed discussion of portfolio choice and asset pricing theory under symmetric information. In addition there will be a brief discussion of financial innovation and market frictions; connections with macroeconomic and international finance models; and some basic issues in

corporate finance. NOTE: This course is cross-referenced with MGMT-820.

ECON 871 Financial Systems: Theory and Applications

This course discusses the economic role of various types of financial intermediaries and financial markets. Topics include: the role of banks in facilitating financing flows between savers and borrowers; the role of payment systems, their problems and the evolution of electronic clearing systems; the evolution of the financial system and the changing role of institutions in accommodating new functions; financial regulation and deregulation. Examples will be drawn largely from Canada and the U.S.

ECON 872 Topics in Quantitative Finance
This course will cover a number of topics in financial econometrics. These will probably include testing the random walk hypothesis, autoregressive conditional heteroskedasticity, econometric methods for transactions data, event studies, testing the CAPM, and value at risk. Other topics that may be covered include models of the term structure, derivative pricing, and the econometrics of foreign exchange rates.

ECON 873 Financial Derivatives
This course covers forward, futures, swap, and option contracts. It deals with how the contracts work, how they are used, how they are valued, and how financial institutions hedge their positions in the contracts. The topics covered include Black-Scholes pricing, the use of binomial trees, and delta-gamma-vega hedging, the mathematics underlying the pricing of derivatives and the numerical procedures that are used to implement derivatives pricing models. It includes in-depth material on exotic options, interest rate derivatives, and credit derivatives. Other topics on risk management will be briefly discussed. NOTE: This course is cross-referenced with MGMT-821.

ECON 880 History of Economic Thought
Most frequently the content of this course focuses upon the analytical structure of the main theoretical models that have been developed since Adam Smith; occasionally the lectures and readings cover broader topics such as the relation of economics to the other social sciences and to philosophy.

ECON 881 Economic Policy Formation
An examination of the economic aspects of recent policy formation in Canada: selected problems and issues. NOTE: This course is cross-referenced with SPS-844.

ECON 882 Research Problems and Methodology
A general course in research methodology. Please refer to Departmental Handbook - QEDetails.

ECON 890 Natural Resource Economics
The objective of this course will be to examine the exploitation and conservation of natural resources and the implications of resource use for public policy, using the tools of economic analysis. The problems and issues that are specific to particular natural resources will be identified. Economic theory and quantitative methods will then be applied to an analysis of these problems, with special attention paid to policy implications generally and those of Canada in particular.

ECON 891 Environmental Economics
The course provides a rigorous theoretical treatment of environmental policy design. Although the emphasis will be on microeconomic modeling approaches, the course will also draw upon case studies of environmental policies. Topics covered include: the theory of externalities, Pigouvian taxes, performance and design standards, marketable permit systems, hybrid systems, policy instrument choice under uncertainty, design of regulatory mechanisms under asymmetric information, political economy of environmental regulation, monitoring and incomplete enforcement, and environmental negotiation.

ECON 896 Non-Research Master's Oral Examination

ECON 898 Master's Essay

ECON 899 Master's Thesis

ECON 910, 911, 912, 913 Advanced Topics in Applied Microeconomics A, B, C and D
Advanced courses in applied microeconomics. Topics will be drawn from different fields but will be organized around applications of microeconomic theory. For example, similar applications of general equilibrium, game theory, contracts, asymmetric information, and incentive theory may be used to explore issues drawn from the range of applied micro fields. No more than two of these courses will be offered in any given academic year.

ECON 915, 916, 917, 918 Advanced Topics in Applied Macroeconomics A, B, C and D
An advanced course in macroeconomic theory. Topics may include growth theory, search, heterogeneous agents, optimal macroeconomic policy, credibility and dynamic contracting.

ECON 950, 951, 954, 955 Advanced Topics in Empirical Methods A, B, C, and D
The contents of this course will vary from year to year. In recent years, it has often dealt with simulation-based estimation, indirect inference, and bootstrap methods. PREREQUISITE: ECON 850 and ECON 851.

ECON 953 Applied Econometrics

This course is an introduction to graduate level time series econometrics. The goal of the course is to provide a foundation in core time series methods that will permit students to undertake serious empirical work or pursue more advanced theoretical modeling. The topics include, but are not limited to, time series regressions, univariate and multivariate stationary time series models (ARMA and VAR models), forecasting, univariate and multivariate non-stationary time series models (trending data, unit roots, cointegration), and possibly some spectral analysis and generalized method of moments (GMM). The course focuses on time series methods that have been become popular and widely used in economics, and economic examples will often be used as motivation. PREREQUISITE: ECON 852 or equivalent
EXCLUSION: Students who take ECON 853 for credit cannot take ECON 953 for credit.

ECON 999 Ph.D. Thesis

The courses listed below are the 4 required courses for the Graduate Diploma in Risk Policy and Regulation.

RPRD 801 Risk Management Theory and Applications
This course provides a critical review of standard risk management models and procedures in private banks and other financial institutions. It will explore current research that aims to improve risk management techniques and operations.

RPRD 802 Financial Institutions Theory and Practice
This course explores theories and practices explaining the role and operation of financial institutions and markets. It will explore current problems and puzzles that are specific to financial institutions.

RPRD 803 Financial Regulation
This course discusses current theory, practice and unresolved problems in financial regulation, especially in relation to controlling risks in financial institutions and the financial system.

RPRD 804 Advanced Topics in Risk Management and Regulation
This course will cover important current topics in financial risk management and regulation. The topics will require detailed analysis of topics suggested by academics and practitioners from the public and private sectors.