

Criminology and Criminal Justice (CRCJ)

Institute of Criminology and Criminal Justice
Faculty of Public Affairs and Management

CRCJ 3000 [1.0 credit] (formerly 48.300)

Honours Seminar in Criminology

Issues and research methodologies in the study of crime. Emphasis is on a critical evaluation of literature and methods used across disciplines. Topics of professional interest, including ethics, are also considered. Students may be required to complete independent research projects.

Prerequisites: third-year standing in the B.A. (Honours) program in Criminology and Criminal Justice and permission of the Institute.

Lectures and seminar three hours a week, laboratory one hour a week.

CRCJ 3901 [1.0 credit] (formerly 48.391)

Practicum in Criminology I

Through a field placement in an agency setting, students are provided the opportunity to obtain practical involvement in various aspects of criminal justice. Discussion and presentations in the Seminar Class and required term papers integrate applied, theoretical and empirical knowledge.

Precludes additional credit for LAWS 3905, PSYC 3903, PSYC 3904, and SOCI 3806. CRCJ 3901 may not be repeated.

Prerequisites: third-year standing in Criminology and Criminal Justice and permission of the Institute.

Field placement eight hours a week, seminar three hours a week.

CRCJ 3902 [1.0 credit] (formerly 48.392)

Practicum in Criminology II

Through a field placement in an agency setting, students are provided the opportunity to obtain practical involvement in various aspects of criminal justice. Discussion and presentations in the Seminar Class and required term papers integrate applied, theoretical and empirical knowledge.

Precludes additional credit for LAWS 3905, PSYC 3903, PSYC 3904, and SOCI 3806. CRCJ 3902 may not be repeated.

Prerequisites: third-year Honours standing in Criminology and Criminal Justice and permission of the Institute.

Field placement eight hours a week, seminar three hours a week.

CRCJ 4908 [1.0 credit] (formerly 48.498)

Honours Research Project

A research project conducted under the direct supervision of a faculty adviser from Psychology, Law or Sociology. Mandatory workshops and symposiums are scheduled during the year.

Prerequisite: CRCJ 3000 and fourth-year standing in the B.A. (Honours) program in Criminology and Criminal Justice with a CGPA of 10.00 or better in the Major and permission of the Institute.

Workshops and symposiums as scheduled.

Economics (ECON)

Department of Economics
Faculty of Public Affairs and Management

ECON 1000[1.0 credit] (formerly 43.100)

Introduction to Economics

An introduction to the major tools and policy problems of economics. Economic analysis is applied to a variety of contemporary problems such as pollution, poverty, the control of monopoly, unemployment, inflation and international economic problems.

Precludes additional credit for FYSM 1003.

Lectures three hours a week and discussion group one hour every two weeks.

ECON 2001 [0.5 credit] (formerly 43.201*)

Intermediate Microeconomics for Non-Majors

The main topics in microeconomic theory with illustrations of their applications. Not open to students in Economics or the Bachelor of Commerce program.

Precludes additional credit for ECON 2002 or ECON 2003.

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department.

Lectures three hours a week.

ECON 2002 [0.5 credit] (formerly 43.202*)

Intermediate Microeconomics I

An analysis of consumer demand, production, costs and an introduction to market structures, with special reference to the determination of conditions which maximize social welfare.

Precludes additional credit for ECON 2001.

Prerequisites: ECON 1000 or FYSM 1003, (grade of C- or better); and MATH 1009, which may be taken concurrently with ECON 2002.

Lectures three hours a week.

ECON 2003 [0.5 credit] (formerly 43.203*)

Intermediate Microeconomics II

An analysis of distribution, market structures and general equilibrium theory, with special reference to the determination of conditions that maximize social welfare.

Precludes additional credit for ECON 2001.

Prerequisite: ECON 2002.

Lectures three hours a week.

ECON 2101 [0.5 credit] (formerly 43.211*)

Intermediate Macroeconomics for Non-Majors

The main topics in macroeconomic theory with illustrations of their application. Not open to students in Economics or the Bachelor of Commerce program.

Precludes additional credit for ECON 2102 or ECON 2103.

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department.

Lectures three hours a week.

ECON 2102 [0.5 credit] (formerly 43.212*)

Intermediate Macroeconomics I

An examination of the standard macroeconomic model of a closed economy, emphasizing both the aggregate demand and the aggregate supply side of the economy. The model is used to analyze basic macroeconomic problems and evaluate proposed solutions of these problems.

Precludes additional credit for ECON 2101.

Prerequisite: ECON 1000 or FYSM 1003 (grade of C- or better); and MATH 1009, which may be taken concurrently with ECON 2102.

Lectures three hours a week.

ECON 2103 [0.5 credit] (formerly 43.213*)

Intermediate Macroeconomics II

An extension of the standard macroeconomic model to include topics such as macroeconomic theory and policy in an open economy, theoretical development and empirical analysis of basic macro relationships, the short-run dynamics of wage-price adjustment and economic growth.

Precludes additional credit for ECON 2101.

Prerequisite: ECON 2102.

Lectures three hours a week.

ECON 2201 [0.5 credit]

Statistical Methods in Economics and Business I

An introduction to statistical inference. Topics covered include descriptive statistics, probability theory, sampling distributions, estimation and hypothesis testing with a single population.

Precludes additional credit for ECON 2200, GEOG 2006, STAT 2507, STAT 2606, PSYC 3000, SOCI 3700.

Prerequisites: MATH 1009 and MATH 1109 (or equivalent) or permission of the Department. These courses may be taken concurrently with ECON 2201. For students in the Bachelor of International Business program, the prerequisite is successful completion of BUSI 1703.

Lectures three hours a week, tutorials one hour a week.

ECON 2202 [0.5 credit]

Statistical Methods in Economics and Business II

Continuation of ECON 2201. Topics covered include estimation and hypothesis testing with two populations, correlation, simple and multiple linear regression, analysis of variance, tests of goodness of fit and independence, and introduction to statistical computing.

Precludes additional credit for ECON 2200, GEOG 2006, STAT 2509, STAT 2607, PSYC 3000, SOCI 3700.

Prerequisites: ECON 2201.

Lectures three hours a week, tutorials one hour a week.

ECON 2305 [1.0 credit] (formerly 43.235)

Canadian Economic History

A historical survey of persistence and change in the Canadian economy from the eighteenth to the twentieth centuries. (Also listed as HIST 2305.)

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department.

Lectures three hours a week.

ECON 2400 [0.5 credit] (formerly 43.240*)

Economic Applications of Mathematics

Optimization, with and without constraints, and comparative static methods applied to models such as utility maximization and least cost production; homogenous functions; compounding and exponential functions; economic models involving integration; the use of matrix algebra and differential equations.

Prerequisites: ECON 1000 or FYSM 1003, and MATH 1009 and MATH 1109. Enrolment in this course is limited to students whose major is Economics or Business.

Lectures three hours a week.

ECON 2504 [0.5 credit] (formerly 43.254*)

Essentials of Business Finance

Business firms' financing, capital investment, and dividend policy decisions, cost of capital and short-term asset management problems (Also listed as ECON 2504.)

Precludes additional credit for BUSI 2500.

Prerequisites: BUSI 1005 or BUSI 1002 with a grade of C- or better.

Lectures two hours and tutorials one hour a week.

ECON 2505 [0.5 credit] (formerly 43.255*)

Business Finance

Capital investment and financing decisions in the context of risk and return tradeoffs. Primary and derivative securities, and their role in risk management. Mergers, corporate restructuring, the theory of principal-agent relationships, and financial planning, forecasting, and control. (Also listed as ECON 2505.)

Prerequisites: BUSI 1703, or BUSI 1704 and BUSI 1705, or MATH 1009 and MATH 1119, BUSI 2504, ECON 1000, or ECOR 3800.

Students in the Bachelor of International Business program may replace the Mathematics courses with BUSI 1703.

Lectures three hours a week.

ECON 3005 [0.5 credit] (formerly 43.305*)

Selected Topics in Economic History

Examination of the economic development of North America or Europe or other possible selected sets of countries. Countries examined vary from year to year.

Prerequisite: ECON 1000 or FYSM 1003, or permission of

the Department.

Lectures three hours a week.

ECON 3100 [0.5 credit] (formerly 43.310*)

Women in the Economy

Topics include women's and men's paid work and earnings; discrimination; unpaid work and the value of household production; family decision making and intra-household resource allocation; gender and macroeconomic policy; women and poverty; feminist approaches to economic theory.

Prerequisites: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3200 [0.5 credit] (formerly 43.320*)

Economics of Information and the Media

An introduction to the economics of information and the media, with a focus on the analysis of production and distribution of information, the application of theory to selected communications-media industries in Canada, and the analysis of existing Canadian policies.

Precludes additional credit for ECON 4205.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3204 [0.5 credit] (formerly 43.324*)

An Economic Analysis of Law

An introduction to the application of economic principles and methodology to a variety of legal problems with particular emphasis on the theory of property rights and the allocation of resources.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3205 [1.0 credit] (formerly 43.325)

The Economic Development of Canada

A general survey of Canadian economic development from 1534 to 1970.

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department.

Lectures three hours a week.

ECON 3206 [0.5 credit] (formerly 43.326*)

Economic Theories of Federalism

Economic dimensions of federalism, with reference to Canadian experience. Issues include: fiscal federalism; impact of federal economic policies on provincial economies, decentralization possibilities for fiscal and economic development policies, consequences of policies such as provincial trade barriers and impediments to factor flows.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3300 [0.5 credit] (formerly 43.330*)

Public Policy Toward Business

The interaction of government and business in the Canadian economy. Reasons for government involvement in selected public policy areas. Topics covered may include competition policy, regulation of firms by boards and commissions, environmental regulation and public enterprise.

Precludes additional credit for ECON 4301.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3305 [1.0 credit] (formerly 43.335)

Political Economy in the Modern State

An examination of the role of government in the economy, with special emphasis on alternate forms of social coordination and the advantages and disadvantages of each form in the Canadian system.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures two hours a week.

ECON 3401 [0.5 credit] (formerly 43.341*)

Regional Economics

Unequal distribution of economic activity between spatially defined regions. The pattern in Canada since World War II, and the outlook for the future is evaluated, considering "natural" adjustment mechanisms, and policy tools.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3402 [0.5 credit] (formerly 43.342*)

Special Studies in Economics

Content of this course varies year by year; topics to be determined by the instructor invited to offer the course.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3404 [0.5 credit] (formerly 43.344*)

Economic Thought and Policy in Canada

An account of the interrelationship between economic theories expounded in Canada and their issue in national policy.

Prerequisite: An introductory course in one of the social sciences or Canadian history.

Lectures three hours a week.

ECON 3406 [0.5 credit] (formerly 43.346*)

Agricultural Economics

An examination of the agricultural industry in the national economy and in low-income societies. The course emphasizes the working out of the basic forces that determine supply-demand for the industry and the functional distribution of income among the factors of production.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3407 [0.5 credit] (formerly 43.347*)

Public Finance: Taxation

Role and nature of the government sector in the economy, principles of taxation, tax equity, incidence and excess burden of taxes, structure of taxes in the economy, role of personal, corporate, sales and wealth taxes, fiscal stabilization policy, and economics of public debt.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3408 [0.5 credit] (formerly 43.348*)

Public Finance: Expenditure

The role and nature of the government sector in the economy, the theory of public goods, the equity and efficiency effects of public expenditures, voting rules and fiscal politics, techniques of public expenditure analysis, and intergovernmental fiscal relations.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3500 [0.5 credit] (formerly 43.350*)

Corporate Finance

An examination of the major issues in corporate finance and applied financial management. Topics include: introduction to portfolio theory, the capital asset pricing model, cost of capital, capital structure and dividend policy, lease financing, capital budgeting under uncertainty, mergers and consolidations. (Also listed as BUSI 3500.)

Prerequisites: ECON 2002, ECON 2500 or ECON 2505, and ECON 2200 or STAT 2607.

Lectures three hours a week.

ECON 3501 [0.5 credit] (formerly 43.351*)

Principles of Investments

Procedures and methods of investment analysis. The stock and bond markets. Government regulation of securities markets. Valuation of common stocks and fixed income securities. Options, warrants, convertibles and commodities. (Also listed as BUSI 3502.)

Prerequisites: ECON 2500 or ECON 2505, and ECON 2200 or STAT 2607.

Lectures three hours a week.

ECON 3506 [0.5 credit] (formerly 43.356*)

Introduction to Labour Economics

Basic principles of labour economics including market, institutional and sociological forces. Issues such as technology and labour demand, wage systems, human capital, internal wage structure, market discrimination, female labour-force entry, wage/price spiral, household labour supply, wage determination are considered.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3507 [0.5 credit] (formerly 43.357*)

Introduction to Industrial Relations

An introduction to industrial relations covering such topics as: industrial relations systems, the functioning of trade unions, collective bargaining in Canada and Canadian public policy in industrial relations.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3600 [0.5 credit] (formerly 43.360*)

Topics in International Economics

Possible topics include theory and policy in international trade, finance, investment and development. Intended for students planning to take only 0.5 credit in international economics at the 3000-level.

Prerequisite: ECON 1000 or FYSM 1003, or permission of the Department.

Lectures three hours a week.

ECON 3601 [0.5 credit] (formerly 43.361*)

Introduction to International Trade

An extension of the basic principles of economics to international trade. Topics covered include the theory of international specialization, tariffs and other barriers to trade, trade liberalization and economic integration, international movements of labour and capital, trade and development.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3602 [0.5 credit] (formerly 43.362*)

International Monetary Problems

A discussion of the theory and institutions of the international monetary system, and the related balance of payments problems of nation states.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3603 [0.5 credit] (formerly 43.363*)

Introduction to Economic Development

A discussion of the principles of economic development. Application to the problems of the developing countries.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3604 [0.5 credit] (formerly 43.364*)

Development Planning and Project Evaluation

An Introduction to the tools used in the planning and evaluation of development projects. Topics include the theory, application, strengths and limitations of cost-benefit analysis and competing approaches, and an examination of project evaluation techniques.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3607 [0.5 credit] (formerly 43.367*)

Monetary and Financial Institutions

This course examines the behaviour of financial intermediaries and institutions, such as the Bank of Canada, banks and trust companies, and regulatory bodies such as the Canada Deposit Insurance Corporation and the Superintendent of Financial Institutions.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3700 [0.5 credit] (formerly 43.370*)

The Economics of Transition

The transition from state ownership and central planning to mixed ownership structure with resource allocation by market mechanisms. "Classical socialism" is criticized and the processes of transition in countries of Central and

Eastern Europe, the former Soviet Union and Asia are compared.

Precludes additional credit for ECON 3701 and ECON 3702.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3800 [0.5 credit] (formerly 43.380*)

Topics in Canadian Economic Policy

Economic analysis applied to selected policy areas, issues or institutions. One or more of the following topics may be dealt with: decision-making by bureaucratic institutions, policy problems arising from poverty, the economics of natural resources and pollution, urban economics.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3805 [0.5 credit] (formerly 43.385*)

The Economics of Natural Resources

This course is concerned with the application of economic analysis to questions concerning natural-resource use, management and conservation, as well as market failures and environmental effects. Policy problems relating to natural resources are discussed.

Prerequisite: ECON 1000 or FYSM 1003.

Lectures three hours a week.

ECON 3806 [0.5 credit] (formerly 43.386*)

Environmental Economics

Microeconomic analysis of environmental issues. Frameworks for measuring environmental costs and benefits. The efficiency of alternative pollution control policies. Applications include air and water pollution and global environmental problems such as ozone depletion and global warming.

Prerequisites: ECON 1000 or FYSM 1003, or ECOR 3800.

Lectures three hours a week.

ECON 4004 [0.5 credit] (formerly 43.404*)

Operations Research I

Linear programming, duality, sensitivity analysis, transportation and network problems. Both theory and a wide range of applications are studied.

Precludes additional credit for BUSI 2300 and MATH 3801.

Prerequisites: MATH 1009 and MATH 1109 (grade of C- or better in each course).

Lectures three hours a week.

ECON 4005 [0.5 credit] (formerly 43.405*)

Operations Research II

Dynamic programming, inventory models, queuing, simulation, non-linear programming. (Also listed as BUSI 4305.)

Prerequisites: ECON 4004, or BUSI 2300, or MATH 3801, and ECON 2202 (grade of C- or better) or STAT 2607 (grade of C- or better).

Lectures three hours a week.

ECON 4006 [0.5 credit] (formerly 43.406*)

Economics of Uncertainty and Information

Uncertainty, imperfect information and asymmetric information in the allocation of resources and the performance of markets and alternative co-ordinating mechanisms.

Prerequisites: ECON 2202 or STAT 2606 and STAT 2607, and ECON 2002, with a CGPA of 4.00 or better on these prerequisites.

Lectures three hours a week.

ECON 4007 [0.5 credit] (formerly 43.407*)

Statistical Decision Theory

Bayesian and classical approaches to decision-making under uncertainty for individuals and firms.

Precludes additional credit for BUSI 4306.

Prerequisite: ECON 2202 or STAT 2606 and STAT 2607 (grade of C- or better).

Lectures three hours a week.

ECON 4008 [0.5 credit] (formerly 43.408*)

Advanced Corporate Finance

An in-depth examination of some of the major theoretical issues in corporate finance. This course requires analyses and presentations of both articles from the finance literature and case studies. (Also listed as BUSI 4500.)

Prerequisite: ECON 3500 (grade of C- or better).

Lectures three hours a week.

ECON 4100 [0.5 credit] (formerly 43.410*)

Financial Markets

Issues in financial markets. Topics may include: optimal portfolio choice, consumption based capital asset pricing model, arbitrage theory, financial incentives, equity premium puzzle, asset prices and monetary policy, options and futures markets, real options, regulation of financial markets.

Precludes additional credit for BUSI 4503.

Prerequisites: ECON 2002, ECON 2003, ECON 2102, and ECON 2202 or STAT 2509 or STAT 2607 (a grade of C- or better is required in each course).

Lectures and seminars three hours a week.

ECON 4101 [0.5 credit] (formerly 43.411*)

Investment Management

Analysis of investment requirements for individuals and institutional investors: liquidity, risk and return; portfolio design, construction, management and control; performance measurement; capital market theory. (Also listed as BUSI 4502.)

Prerequisite: ECON 3501 (grade of C- or better).

Lectures three hours a week.

ECON 4105 [1.0 credit] (formerly 43.415)

History of Economic Thought

Crucial achievements in economic theory and doctrine in the nineteenth and twentieth centuries are studied. Special emphasis is given to the interrelationship between the social environment and economic thought, especially to the role of economics in the development of the national state and international institutions. Also offered at the graduate level, with additional or different requirements, as ECON 5201 and ECON 5202, for which additional credit is precluded.

Prerequisite: ECON 2002, ECON 2003, ECON 2102 and ECON 2103, (with an average grade of C- or better), or permission of the Department.

Lectures and seminars three hours a week.

ECON 4200 [0.5 credit] (formerly 43.420*)

Microeconomic Theory

Theory of individual economic behaviour, theory of exchange and production, general equilibrium, alternative theories of pricing, allocation and distribution. Elementary tools of mathematics are employed in the exposition of most topics.

Prerequisites: ECON 2002 and ECON 2003, with an average grade of C+ or better, ECON 2400 (with a grade of C- or better) and ECON 2202 (ECON 2202 may be taken concurrently with ECON 4200).

This course is required for students in the Honours program in Economics.

Lectures three hours a week.

ECON 4201 [0.5 credit] (formerly 43.421*)

Macroeconomic Theory

Major controversies in macroeconomic theory. Topics such as: determination of national income, employment, price level and interest rates; commodity, labour and asset markets; fiscal and monetary stabilization policy.

Prerequisites: ECON 2102 and ECON 2103, with an average grade of C+ or better, ECON 2400 (with a grade of C- or better) and ECON 2202 (ECON 2202 may be taken concurrently with ECON 4201).

This course is required for students in the Honours program in Economics.

Lectures three hours a week.

ECON 4205 [0.5 credit] (formerly 43.425*)

Advanced Economics of Information and Media

The economics of information production, its distribution through broadcasting, publishing or the Internet, its exchange through telephone and e-mail networks, its use in private

and public organizations. An analysis of telecommunications, broadcasting, copyright, privacy and Internet policy.
 Precludes additional credit for ECON 3200.
 Prerequisites: ECON 2001 or ECON 2002 and ECON 2003 (grade of C- or better in each course)
 Lectures three hours a week.

ECON 4206 [0.5 credit] (formerly 43.426*)

Topics in North American Economic History

An examination of methodology applicable to the analysis of economic history. Intensive examination of selected topics in North American economic history.
 Prerequisites: ECON 2002, ECON 2003, ECON 2102 and ECON 2103, (with an average grade of C- or better on these prerequisites), or permission of the Department.
 Lectures three hours a week.

ECON 4207 [0.5 credit] (formerly 43.427*)

Topics in European Economic History

An examination of methodology applicable to the analysis of economic history. Intensive examination of selected topics in European economic history.
 Prerequisites: ECON 2002, ECON 2003, ECON 2102 and ECON 2103, (with an average grade of C- or better on these prerequisites), or permission of the Department.
 Lectures three hours a week.

ECON 4301 [0.5 credit] (formerly 43.431*)

Industrial Organization I - Theory and Evidence

An examination of various theoretical and empirical studies of firm and market organization with emphasis on the pricing, advertising, investment and locational behaviour of firms in imperfectly competitive markets.
 Precludes additional credit for ECON 3300, and ECON 4300.
 Prerequisites: ECON 2002 and ECON 2003, or ECON 2001 (with an average grade of C- or better on these prerequisites).
 Lectures three hours a week.

ECON 4302 [0.5 credit] (formerly 43.432*)

Industrial Organization II - Policy and Applications

This course extends the theoretical material developed in ECON 4301 and applies it to examine public policies toward business in Canada and in other market economies with emphasis on policies relating to regulation, competition, and innovation.
 Precludes additional credit for ECON 4300.
 Prerequisite: ECON 4301.
 Lectures three hours a week.

ECON 4306 [0.5 credit] (formerly 43.436*)

Labour Economics

The application of price theory is applied to the labour market. Topics include models of labour supply and labour demand, human capital and the economics of education and unions and their impact on the labour market. Also offered at the graduate level, with additional or different requirements, as ECON 5307, for which additional credit is precluded.
 Precludes additional credit for ECON 4305.
 Prerequisites: ECON 2002 or ECON 2001 (with a grade of C- or better), or permission of the Department.
 Lectures three hours a week.

ECON 4309 [0.5 credit] (formerly 43.439*)

Applied Industrial Economics

This course examines the empirical application of microeconomics, with special emphasis on the Canadian economy. Topics include: consumer demand, firm production and investment, and industrial and trade structure.
 Prerequisites: ECON 2002, ECON 2003, and ECON 2202, (with a grade of C- or better on these prerequisites).
 Lectures three hours a week.

ECON 4401 [0.5 credit] (formerly 43.441*)

Public Sector Economics: Taxation

A discussion of the theory of taxation and an examination of empirical attempts to quantify the theory. Some topics of current interest, such as the redistribution of income in Canada and tax reform are examined.

Precludes additional credit for ECON 3407.

Prerequisites: ECON 2002 and ECON 2003, or ECON 2001, (with an average grade of C- or better on these prerequisites).
 Lectures three hours a week.

ECON 4402 [0.5 credit] (formerly 43.442*)

Public Sector Economics: Expenditures

A discussion of the theory of government expenditures and an examination of empirical attempts to quantify the theory. Some topics of current interest, such as expenditures and grants in the Canadian federalism are examined.
 Precludes additional credit for ECON 3408.
 Prerequisites: ECON 2002 and ECON 2003, or ECON 2001 (with an average grade of C- or better on these prerequisites).
 Lectures three hours a week.

ECON 4405 [0.5 credit] (formerly 43.445*)

Welfare Economics

An examination of contemporary welfare economics and its applications. Also offered at the graduate level, with additional or different requirements, as ECON 5405, for which additional credit is precluded.
 Prerequisites: ECON 2002 and ECON 2003, or ECON 2001, (with an average grade of C- or better on these prerequisites).
 Lectures and seminars three hours a week.

ECON 4406 [0.5 credit] (formerly 43.446*)

Economic Dynamics: Growth

An examination of modern steady equilibrium economic growth encompassing neoclassical, neo-Keynesian and neo-Ricardian theories of growth and accumulation. The theories of money and capital (and controversies) are examined in a growth context. Some discussion of optimum saving and accumulation is also included.
 Prerequisites: ECON 2002, ECON 2003, ECON 2102 and ECON 2103, (with an average grade of C- or better on these prerequisites).
 Lectures and seminars three hours a week.

ECON 4407 [0.5 credit] (formerly 43.447*)

Project Evaluation

An analytic treatment of the principles of project evaluation and their applications. Also offered at the graduate level, with additional or different requirements, as ECON 5407, for which additional credit is precluded.
 Prerequisite: ECON 4200 with a grade of C+ or better.
 Lectures three hours a week.

ECON 4501 [0.5 credit] (formerly 43.451*)

Economic Dynamics: Business Cycles

An analysis of the nature and causes of fluctuations in income, prices and employment. A review of theories of short-run economic dynamics, with particular references to how expectations are formed. Some consideration is given to countercyclical government policies.
 Prerequisites: ECON 2102 and ECON 2103, (with an average grade of C- or better on these prerequisites).
 Lectures and seminars three hours a week.

ECON 4507 [0.5 credit] (formerly 43.457*)

The Economics of Development

An examination of some theoretical approaches to the economics of development, together with analysis of some economic policy issues of a largely internal character, such as intersectoral investment allocation, income distribution, unemployment, and investment in human development.
 Prerequisites: ECON 2002 and ECON 2003, or ECON 2001; and ECON 2102 and ECON 2103, or ECON 2101 (with an average grade of C- or better on these prerequisites).
 Lectures three hours a week.

ECON 4508 [0.5 credit] (formerly 43.458*)

International Aspects of Economic Development

An analysis of the international economic policy problems of development in Asia, Africa and Latin America, focusing on

international trade, direct foreign investment, technological transfer, regional integration, debt and development financing, and international migration.

Prerequisites: ECON 2002 and ECON 2003, or ECON 2001; and ECON 2102 and ECON 2103, or ECON 2101 (with an average grade of C- or better on these prerequisites).

Lectures three hours a week.

ECON 4601 [0.5 credit] (formerly 43.461*)

International Trade Theory and Policy

International trade theory and its implications for economic policy. Topics such as determinants of trade and specialization, gains from trade and commercial policy, international factor mobility, growth and development.

Precludes additional credit for ECON 3600 and ECON 3601.

Prerequisites: ECON 2002 and ECON 2003, or ECON 2001 (with an average grade of C- or better on these prerequisites).

Lectures three hours a week.

ECON 4602 [0.5 credit] (formerly 43.462*)

International Monetary Theory and Policy

International monetary theory and its implications for economic policy. Topics such as sources of disequilibrium and adjustment in the balance of payments under fixed versus flexible exchange rates, international capital movements, and international monetary reform.

Precludes additional credit for ECON 3600 and ECON 3602.

Prerequisites: ECON 2102 and ECON 2103, or ECON 2101 (with an average grade of C- or better on these prerequisites).

Lectures three hours a week.

ECON 4605 [0.5 credit] (formerly 43.465*)

Industrial Relations

Economic analysis of selected industrial relations and labour market policy problems. Topics include unionization, strike activity, the economics of occupational health and safety, pension policy, and the impact of new technology on the labour market.

Precludes additional credit for ECON 4605 [1.0].

Prerequisites: ECON 2001 or ECON 2002 (with a grade of C- or better); or permission of the Department.

Lectures three hours a week.

ECON 4607 [0.5 credit] (formerly 43.467*)

Monetary Theory I

Foundations of monetary theory. Classical, Keynesian and other money transmission mechanisms; the "optimum quantity of money;" estimates of supply and demand; difficulties of policy implementation in open and closed economies and in a growth context.

Prerequisites: ECON 2002 and ECON 2003, or ECON 2001; and ECON 2102 and ECON 2103, or ECON 2101 (with an average grade of C- or better on these prerequisites).

Lectures three hours a week.

ECON 4608 [0.5 credit] (formerly 43.468*)

Monetary Theory II

A continuation of ECON 4607. This course analyzes in depth some past and current controversies in monetary theory particularly as they relate to policy issues.

Prerequisite: ECON 4607.

Lectures three hours a week.

ECON 4701 [0.5 credit] (formerly 43.471*)

National Accounting

Introduction to modern social accounting, including national income and expenditure accounts, input-output accounts, financial flow and national balance sheet accounts. Canadian practice concerning national wealth accounts, price and quantity indices and productivity measures, and the effects of inflation on national accounts.

Prerequisites: ECON 2002, ECON 2003, and ECON 2102 (with an average grade of C- or better on these prerequisites).

Lectures three hours a week.

ECON 4706 [0.5 credit] (formerly 43.476*)

Econometrics I

An introduction to econometric theory and analysis of the classical normal regression model. Topics include estimation methods, hypothesis testing, multicollinearity, autocorrelation, and heteroscedasticity.

Precludes additional credit for ECON 4805, ECON 4802, STAT 3503 and STAT 3505.

Prerequisite: ECON 2202 or equivalent (with a grade of C+ or better).

Lectures three hours a week.

ECON 4707 [0.5 credit] (formerly 43.477*)

Econometrics II

An extension of ECON 4706, Econometrics I. Topics include dummy variables, qualitative and limited dependent variables, and simultaneous equation models. Optional topics include simple expectations models, errors in variables, specification tests and diagnostics checks, distributed lag models, and seemingly unrelated regression models.

Precludes additional credit for ECON 4805.

Prerequisite: ECON 4706, or STAT 3503 or STAT 3505 (with a grade of C- or better).

Lectures three hours a week.

ECON 4800 [0.5 credit] (formerly 43.480*)

Research Seminar in Urban Economics

An inquiry into the internal dynamics of cities and inter-urban relationships primarily through directed research.

Prerequisites: ECON 2002 and ECON 2003, or ECON 2001; and ECON 2202 or STAT 2606 and STAT 2607 (with an average grade of C- or better on these prerequisites).

ECON 4803 [0.5 credit] (formerly 43.483*)

Applied Time Series Analysis in Economics and Business

Basic concepts of time series analysis with emphasis on model building and forecasts in economics and business. Topics include: models for stationary and nonstationary time series, model identification, estimation, computation of forecasts and transfer function models. Also offered at the graduate level, with additional or different requirements, as ECON 5703, for which additional credit is precluded.

Prerequisites: ECON 2202 (with a grade of C+ or better), or STAT 2606 and STAT 2607 (or equivalent) (with an average grade of C+ or better).

Lectures three hours a week.

ECON 4804 [0.5 credit] (formerly 43.484*)

Advanced Topics in Applied Econometrics

Advanced coverage of one or more areas of current interest in applied econometrics. An empirical research project may be required.

Prerequisites: ECON 4706 and ECON 4707 (with an average grade of C- or better on these prerequisites).

Lectures three hours a week.

ECON 4806 [0.5 credit] (formerly 43.486*)

Comparative Economic Systems I

This course builds a framework for comparing economic systems, and considers the interaction between economic and political systems. The traditional Soviet-type economy, industrial policy, and problems of transition receive particular attention. Also offered at the graduate level, with additional or different requirements, as ECON 5806, for which additional credit is precluded.

Prerequisite: ECON 2001 or ECON 2002 (with a grade of C- or better), or permission of the Department.

Lectures three hours a week.

ECON 4807 [0.5 credit] (formerly 43.487*)

Comparative Economic Systems II

A comparison of contemporary economic systems. Such diverse economies as mainland China, Japan, Germany, Sweden, Russia, Taiwan and Hungary may be explored. Also offered at the graduate level, with additional or different

requirements, as ECON 5807, for which additional credit is precluded.

Prerequisite: ECON 2001 or ECON 2002 (with a grade of C- or better), or permission of the Department.
Lectures three hours a week.

ECON 4900 [1.0 credit] (formerly 43.490)

Honours Seminar

This seminar focuses on the use of basic economic analysis in a small number of research topics to be selected by the instructors. A major research paper is required. This seminar is intended for fourth-year Honours Economics students.

Prerequisites: ECON 4200 and ECON 4201 or permission of the Department.

Lectures three hours a week.

ECON 4903 [0.5 credit] (formerly 43.493*)

Tutorial in Economics

An additional tutorial in Economics may be taken subsequent to, or concurrently with ECON 4900.

Prerequisite: permission of the Department.

ECON 4904 [0.5 credit] (formerly 43.494*)

Tutorial in Economics

An additional tutorial in Economics may be taken subsequent to or concurrently with ECON 4900.

Prerequisite: permission of the Department.

ECON 4908 [1.0 credit] (formerly 43.498)

Honours Essay

Students taking Honours in Economics may write an Honours essay during their final year. This essay counts for one credit. Students work under an individual faculty adviser.

Prerequisite: permission of the Department.

Electronics (ELEC)

Department of Electronics
Faculty of Engineering

ELEC 1908 [0.5 credit] (formerly 97.198*)

First Year Project

A practical introduction to engineering design. Students work in small teams to specify, design and implement a system, formally managing the project progress and submitting oral and written reports.

Prerequisite: registration in the Engineering Physics program.
Lectures and tutorials two hours a week, laboratory four hours a week.

ELEC 2501 [0.5 credit] (formerly 97.251*)

Circuits and Signals

Properties of signals. Basic circuit elements: voltage and current sources. Kirchhoff's laws, linearity, superposition. Thevenin and Norton's theorems. Circuit simplification. AC steady-state analysis: impedance, admittance, phasors, frequency response. Transient response of RL and RC circuits: form of response, initial and final conditions. RLC circuits: resonance.

Prerequisites: MATH 1005 and PHYS 1004 (or PHYS 1001 and PHYS 1002).

Lectures three hours a week, laboratory and problem analysis three hours a week.

ELEC 2507 [0.5 credit] (formerly 97.257*)

Electronics I

Qualitative semiconductor physics, leading to the diode equation. Diode applications. Operational amplifiers and their application in feedback configurations including active filters. Introduction to bipolar transistors and MOSFETs, biasing and simple circuit applications. Transistor structure of digital logic gates.

Prerequisite: ELEC 2501.

Lectures three hours a week, laboratory and problem analysis three hours a week.

ELEC 2607 [0.5 credit] (formerly 97.267*)

Switching Circuits

Boolean algebra, gate, combinatorial circuits. DeMorgan notation, sum-of-product and product-of-sum forms. Logic arrays, PLAs and PALs. Flip-ops, latches, sequential circuits, state graphs and state minimization. Counters and controllers. Hazards. Asynchronous sequential circuits, race free assignment, realization.

Precludes additional credit for SYSC 2607/SYSC 3607 or ELEC 3607.

Prerequisite: PHYS 1004 or permission of the Department.

Lectures three hours a week, laboratory three hours alternate weeks.

ELEC 3105 [0.5 credit] (formerly 97.315*)

Basic EM and Power Engineering

Electrostatics and magnetostatics. Solution of Poisson's and Laplace's equations. The Lorenz equation and force. Time varying fields. Magnetic circuits and transformers. DC and AC motors.

Precludes additional credit for ELEC 2601 or ELEC 3504.

Prerequisites: MATH 2004 and PHYS 1004 (or PHYS 1001 and PHYS 1002).

Lectures three hours a week, laboratory and problem analysis three hours alternate weeks.

ELEC 3500 [0.5 credit] (formerly 97.350*)

Digital Electronics

Digital circuit design using verilog and logic synthesis, the electronic properties of logic gates, electrical interfacing between logic families, asynchronous to synchronous interfacing, clock distribution and timing, VLSI design options. Students implement substantial circuits with field-programmable gate arrays.

Prerequisites: ELEC 2507 and ELEC 2607.

Lectures three hours a week, laboratory three hours a week.