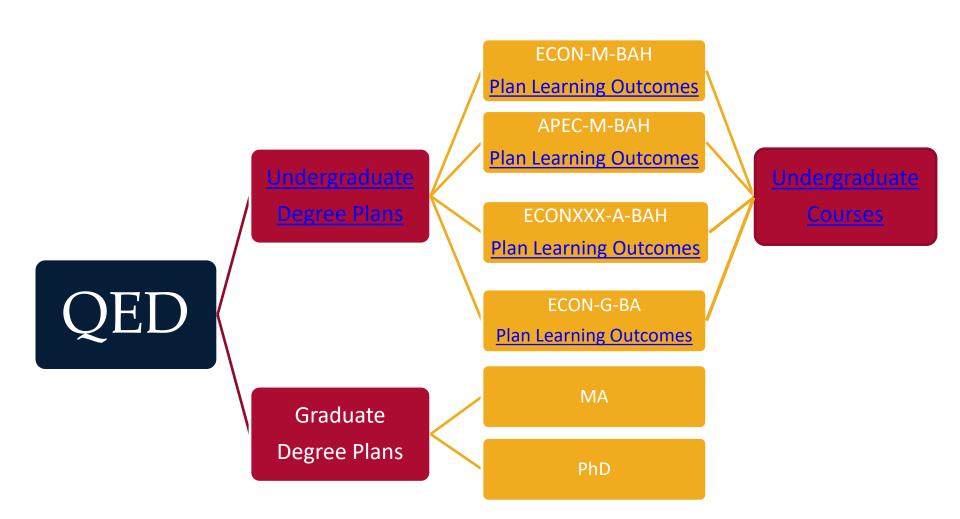


Queen's Economics Department Undergraduate Curriculum Map

2022-2023 Academic Year

AND

2023 QUCAP Self-Study Document



Undergraduate Degree Plans in Economics



ECON-M-BAH

An honours degree in Economics prepares students for the most technically demanding careers, professional programs, and graduate studies in policy design and analysis, data management and advanced analytics, and theoretical and empirical micro and macro economic research.

APEC-M-BAH

An honours degree in Applied Economics exposes students to the latest statistical and analytical techniques with applications in finance, banking, and risk analysis. This plan offers students more opportunities to include upper-year courses in finance, accounting, and business strategies offered by the Queen's Smith School of Business.

ECONXXX-A-BAH

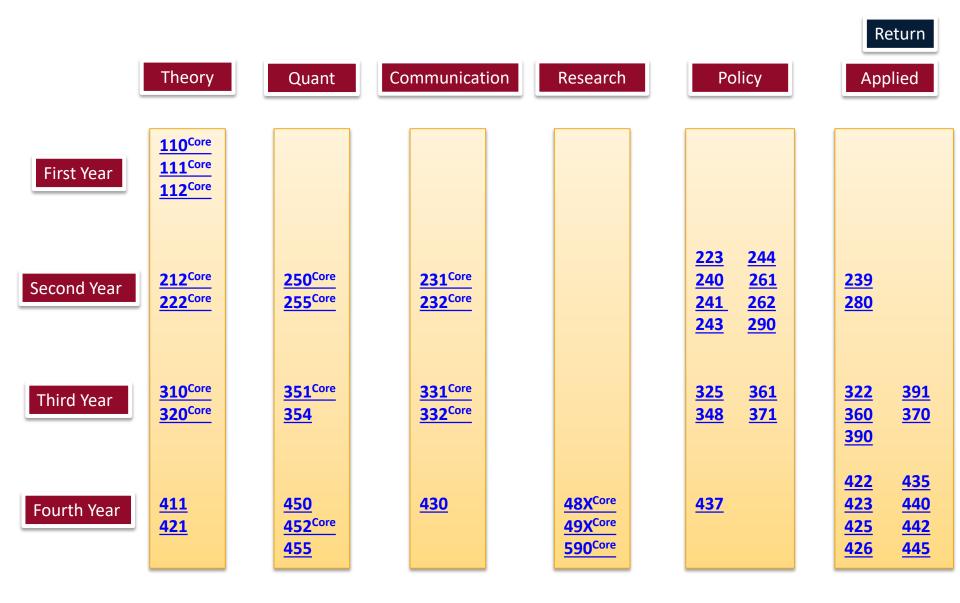
Economics can be combined with any other concentration in the Faculty of Arts and Science as an honours medial. This multi-disciplinary degree plan allows students to combine the analytical rigour of advanced study in Economics with partner departments in the humanities, social sciences, or natural sciences.

ECON-G-BA

The three year general degree in Economics can be combined with other areas of study at Queen's as a minor in Economics, a dual-degree, or it can be a stand-alone degree for those students who choose to conclude their Queen's experience without the upper-year honours course requirements.

Note: All Economics degree plans require the successful completion of first year Calculus.

Undergraduate Course Groups in Economics



Note: Most courses include Learning Outcomes that would permit their categorization into multiple Course Groups.

Undergraduate Courses Addressing Issues Related to Equity, Diversity, Indigeneity and Inclusivity (EDII)

	Primary Focus: Learning Outcomes, Topics, Reading Requirements, Assessments		Supporting: , Case Studies, Requirements	Reading
First Year			110 111 112	
Second Year	231 241 232 244 239 262		240 280 243 290 261	
Third Year	331 332 361		348 390 360 391 370	
Fourth Year	<u>430</u> <u>435</u>		<u>437</u> <u>440</u> <u>442</u>	Return

Note: Virtually all Economics courses at the undergraduate level include methods and analysis relevant to the study of EDII issues. The courses listed here include content that explicitly and directly addresses EDII issues.

Plan	Plan Expectations	Plan Learning Outcomes
ECON-M-BAH	(1) Depth and Breadth of Knowledge	 (i) Using theoretical and empirical tools. (ii) Awareness of current issues, debates and insights. (iii) Selecting field-specific tools. (iv) Placing field-specific findings in broader context.
	(2) Knowledge of Methodologies	 (i) Identifying tools' strengths and weaknesses. (ii) Familiarity with frontier. (iii) Choosing different tools in different contexts.
	(3) Application of Knowledge	 (i) Identifying economic problems. (ii) Using tools to resolve problems. (iii) Evaluating other approaches.
	(4) Communication Skills	 (i) Specifying questions. (ii) Communicating approach and resolution. (iii) Explaining assumptions, hypotheses, evidence.
	(5) Awareness of Limits of Knowledge	 (i) Aware that conclusions depend on assumptions. (ii) Understanding data limitations. (iii) Distinguishing causation from correlation.
	(6) Autonomy and Professional Capacity	(i) Academic integrity and social responsibility.(ii) Generalizing skills.(iii) Foundation for continued development.Return

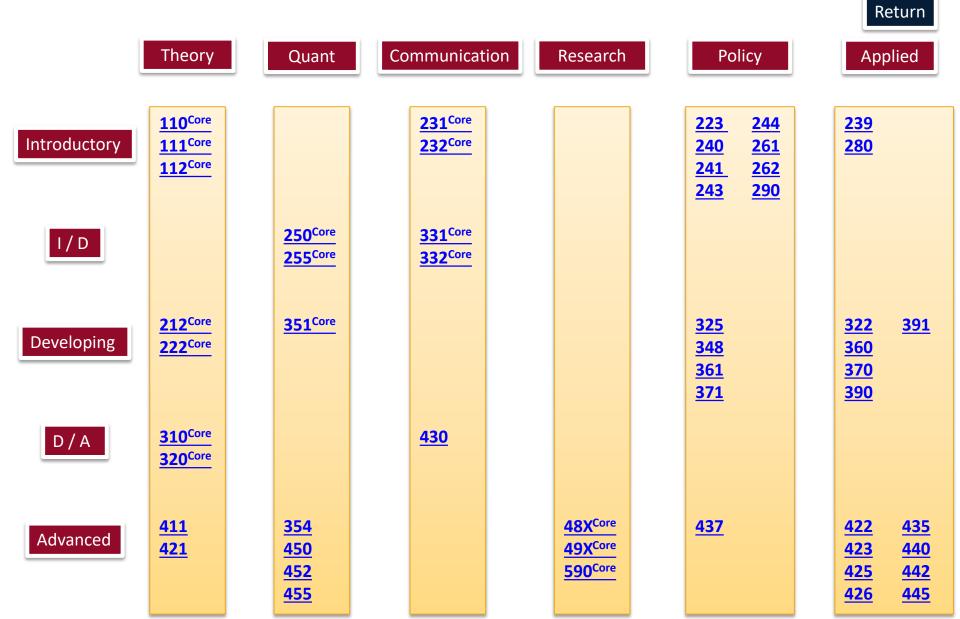
Plan	Plan Expectations	Plan Learning Outcomes
APEC-M-BAH	(1) Depth and Breadth of Knowledge	(i) Using theoretical and empirical tools.
		(ii) Awareness of current issues, debates and insights.
		(iii) Selecting empirical tools for specific applications.
		(iv) Placing field-specific findings in broader context.
	(2) Knowledge of Methodologies	(i) Identifying tools' strengths and weaknesses.
		(ii) Familiarity with economic, policy and financial frontiers.
		(iii) Choosing different tools to address applied problems.
	(3) Application of Knowledge	(i) Identifying economic problems.
		(ii) Using tools to resolve new or unexpected.
		(iii) Evaluating other approaches.
	(4) Communication Skills	(i) Specifying questions.
		(ii) Communicating approach and resolution.
		(iii) Explaining assumptions, hypotheses, evidence.
	(5) Awareness of Limits of Knowledge	(i) Aware that conclusions depend on assumptions.
		(ii) Understanding data limitations.
		(iii) Distinguishing causation from correlation.
	(6) Autonomy and Professional	(i) Academic integrity and social responsibility.
	Capacity	(ii) Generalizing skills.
		(iii) Foundation for continued development.

Plan	Plan Expectations	Plan Learning Outcomes	
ECONXXX-A-BAH	(1) Depth and Breadth of Knowledge	(i) Using theoretical and empirical tools.	
		(ii) Awareness of current issues, debates and insights.	
		(iii) Selecting field-specific tools.	
		(iv) Placing field-specific findings in broader context.	
	(2) Knowledge of Methodologies	(i) Identifying tools' strengths and weaknesses.	
		(ii) Choosing different tools in different contexts.	
	(3) Application of Knowledge	(i) Identifying economic problems.	
		(ii) Using tools to resolve problems.	
		(iii) Evaluating other approaches.	
	(4) Communication Skills	(i) Specifying questions.	
		(ii) Communicating approach and resolution.	
		(iii) Explaining assumptions, hypotheses, evidence.	
	(5) Awareness of Limits of Knowledge	(i) Aware that conclusions depend on assumptions.	
		(ii) Understanding data limitations.	
		(iii) Distinguishing causation from correlation.	
	(6) Autonomy and Professional Capacity	(i) Academic integrity and social responsibility.	
		(ii) Generalizing skills.	
		(iii) Foundation for continued development.	
		Return	

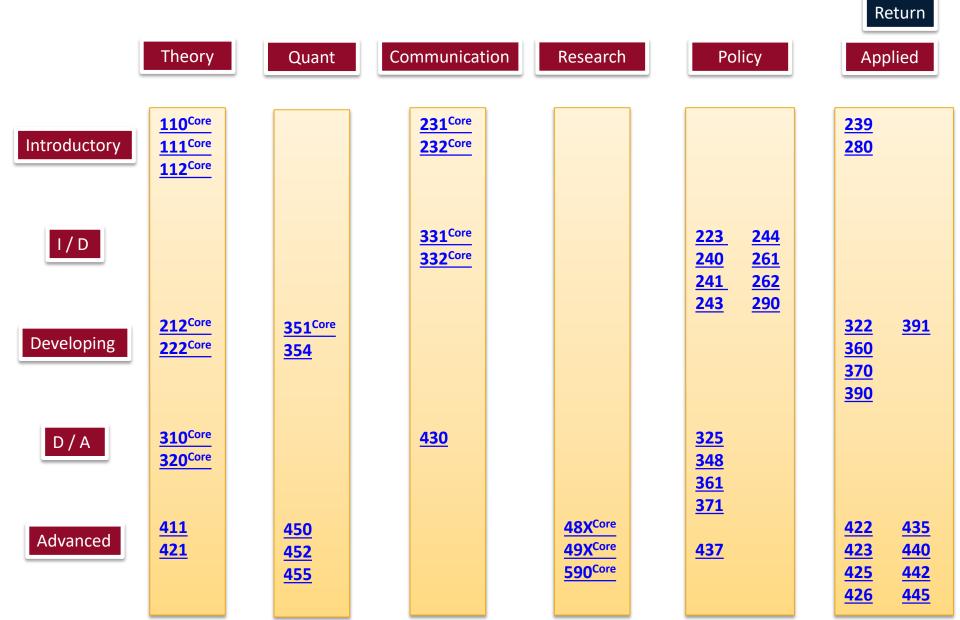
Plan	Plan Expectations	Plan Learning Outcomes
ECON-G-BA	(1) Depth and Breadth of Knowledge	(i) Using theoretical and empirical tools.
		(ii) Awareness of current issues, debates and insights.
		(iii) Placing field-specific findings in broader context.
	(2) Knowledge of Methodologies	(i) Identifying tools' strengths and weaknesses.
		(ii) Choosing different tools in different contexts.
	(3) Application of Knowledge	(i) Identifying economic problems.
		(ii) Using tools to resolve problems.
	(4) Communication Skills	(i) Specifying questions.
		(ii) Communicating approach and resolution.
	(5) Awareness of Limits of Knowledge	(i) Aware that conclusions depend on assumptions.
	(6) Autonomy and Professional Capacity	(i) Academic integrity and social responsibility.
		(ii) Generalizing skills.



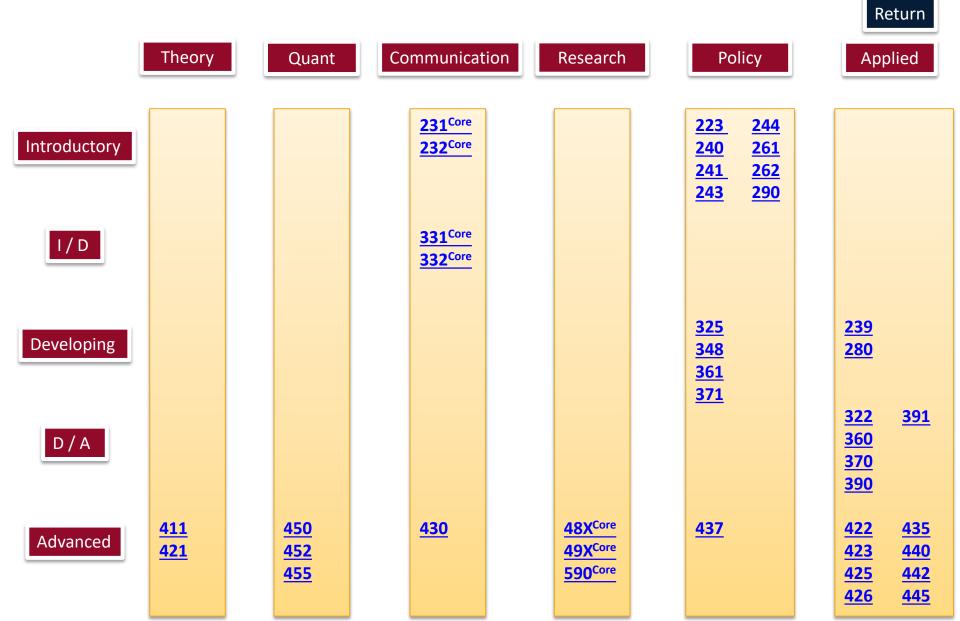
ECON-M-BAH: Depth and Breadth of Knowledge (i) Recognize and understand how to use the main tools of economic theory and empirical analysis.



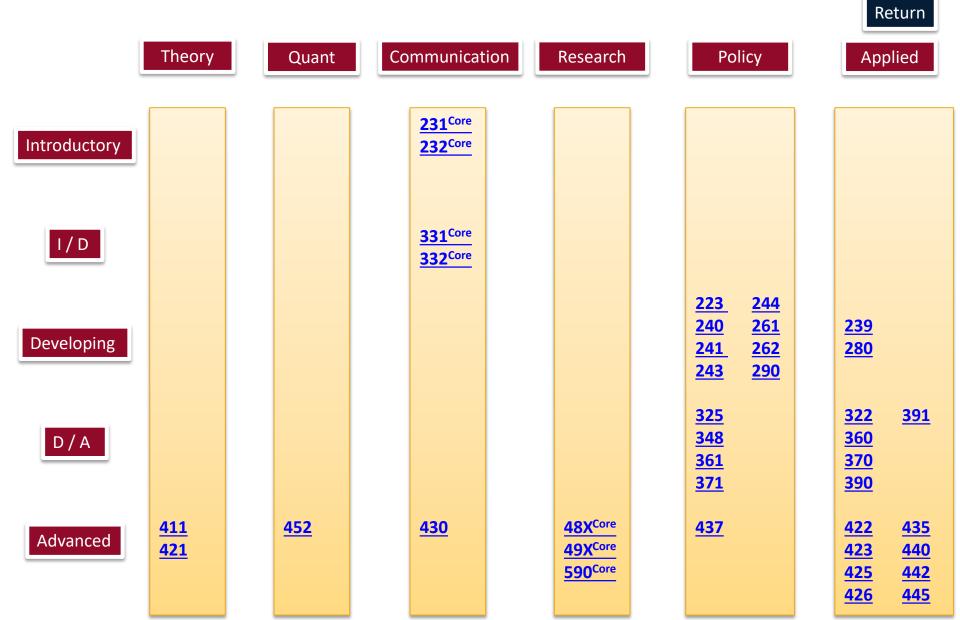
ECON-M-BAH: Depth and Breadth of Knowledge (ii) Demonstrate a broad knowledge and awareness of current economic issues, policy debates and theoretical insights.



ECON-M-BAH: Depth and Breadth of Knowledge (iii) Select appropriate tools and a tightly focused analytical approach that may be used to address narrowly defined field-specific problems.

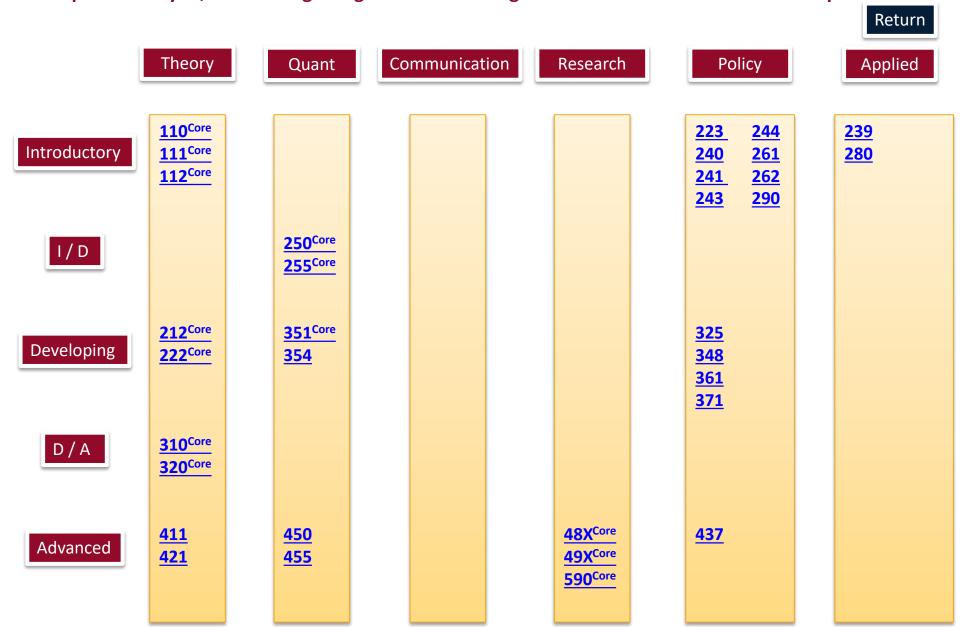


ECON-M-BAH: Depth and Breadth of Knowledge (iv) Place narrowly defined, field-specific analyses into a broader societal and economic context.

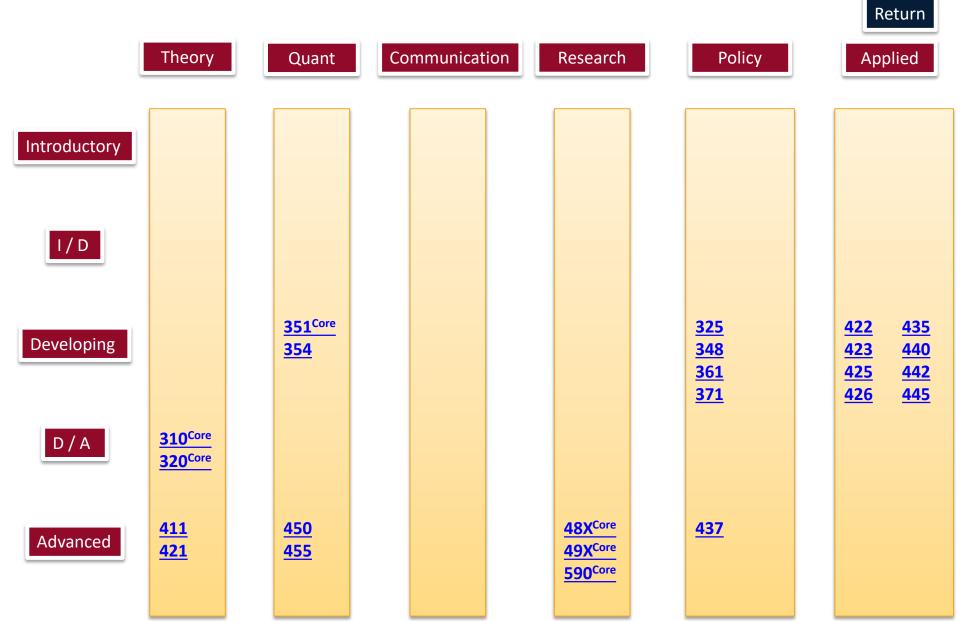


ECON-M-BAH: Knowledge of Methodologies

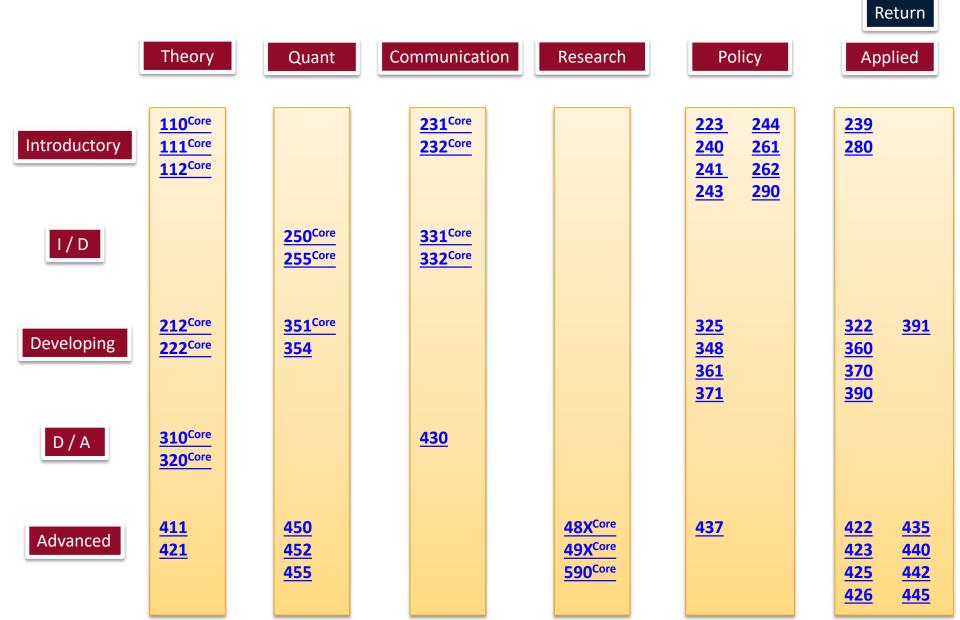
(i) Identify and describe the strengths and weaknesses of the main tools of economic theory and empirical analysis, while recognizing that these strengths and weaknesses are context dependent.



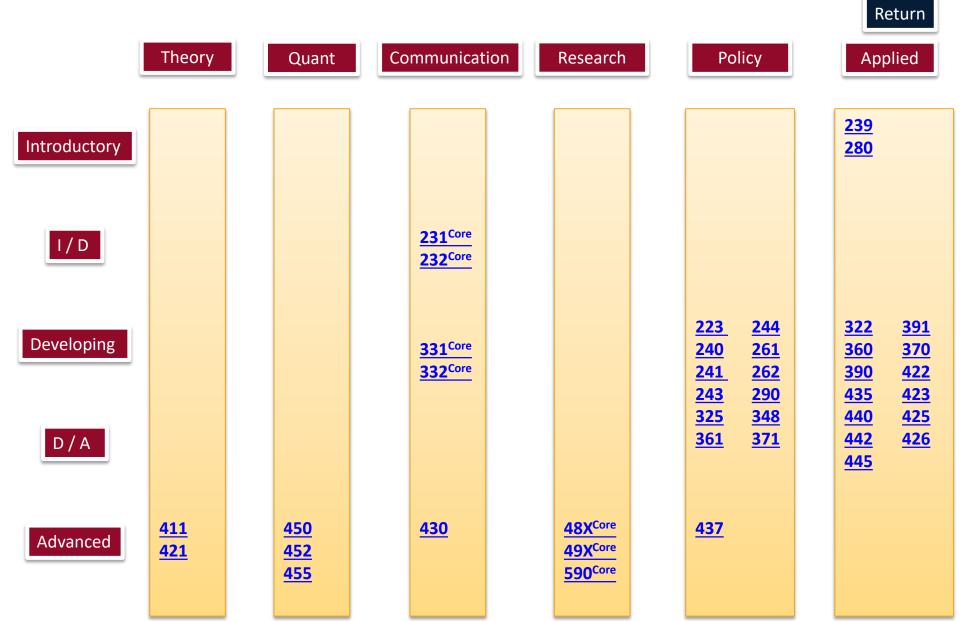
ECON-M-BAH: Knowledge of Methodologies (ii) Demonstrate a familiarity with the tools and analytical approaches being used on the frontiers of economic analysis.



ECON-M-BAH: Knowledge of Methodologies (iii) Demonstrate an ability to implement appropriate tools and analytical approaches across a range of economic problems and contexts.



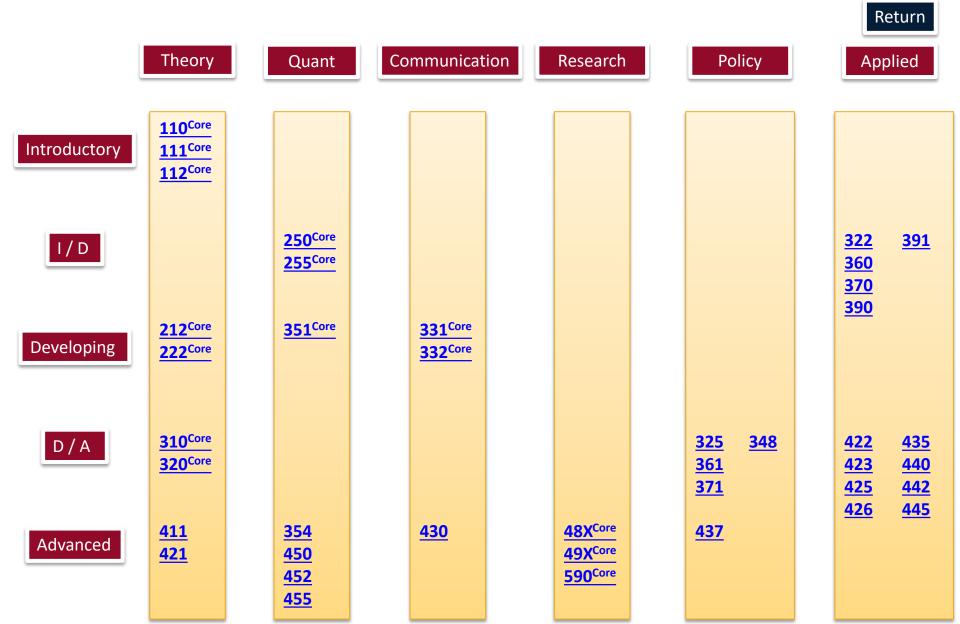
ECON-M-BAH: Application of Knowledge (i) Demonstrate an ability to identify problems for which economic analysis may help with framing and resolution.



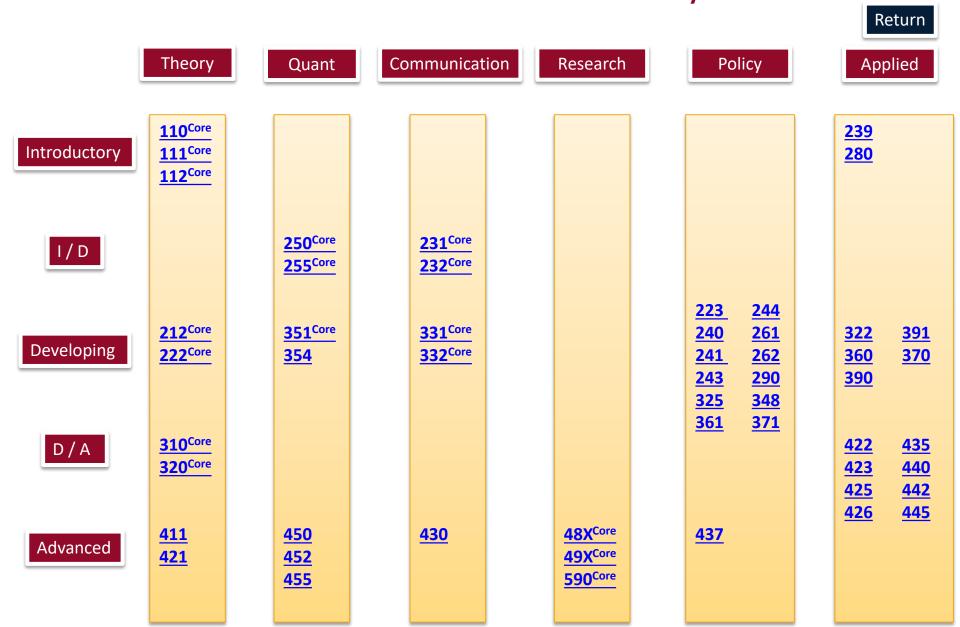
ECON-M-BAH: Application of Knowledge

(ii) Demonstrate competence in the use of economic tools and analytical approaches to frame and

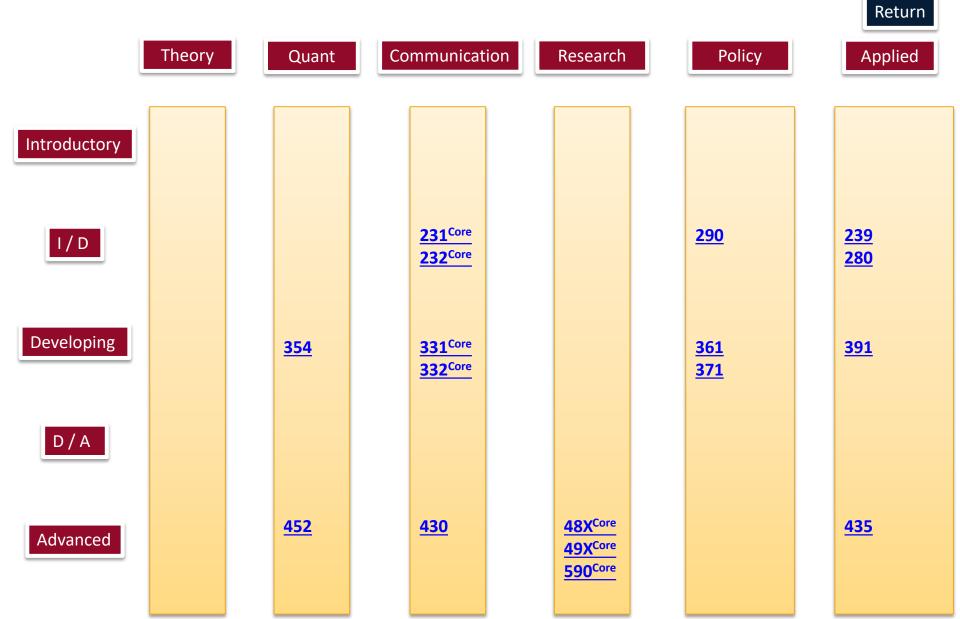
resolve problems that are new and/or being introduced into new contexts.



ECON-M-BAH: Application of Knowledge (iii) Critically evaluate approaches and proposed solutions that originate from alternate economic and non-economic analyses.

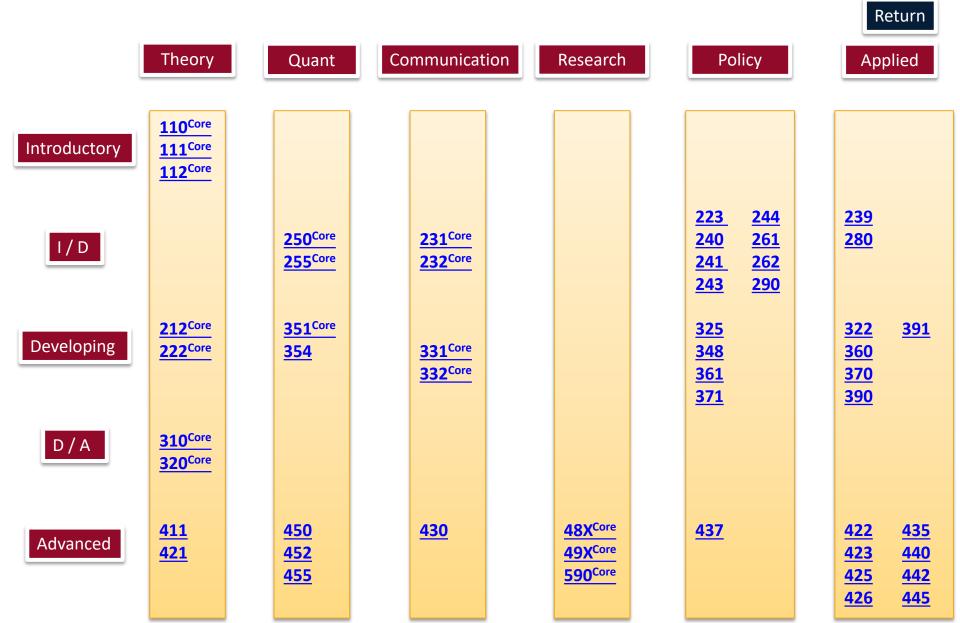


ECON-M-BAH: Communication Skills (i) Specify a well-defined question and the dimensions of an appropriate economic response.

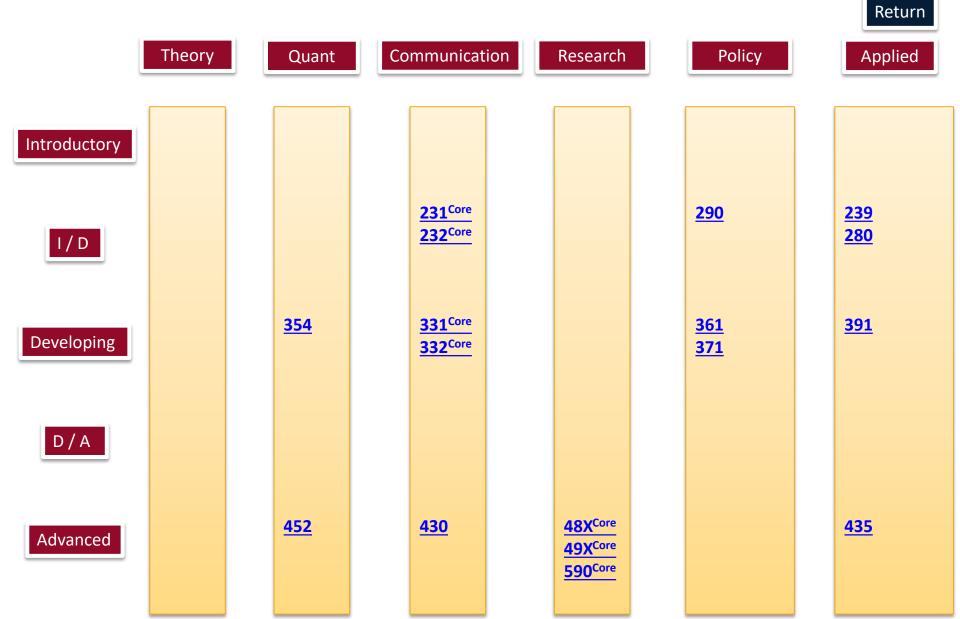


ECON-M-BAH: Communication Skills

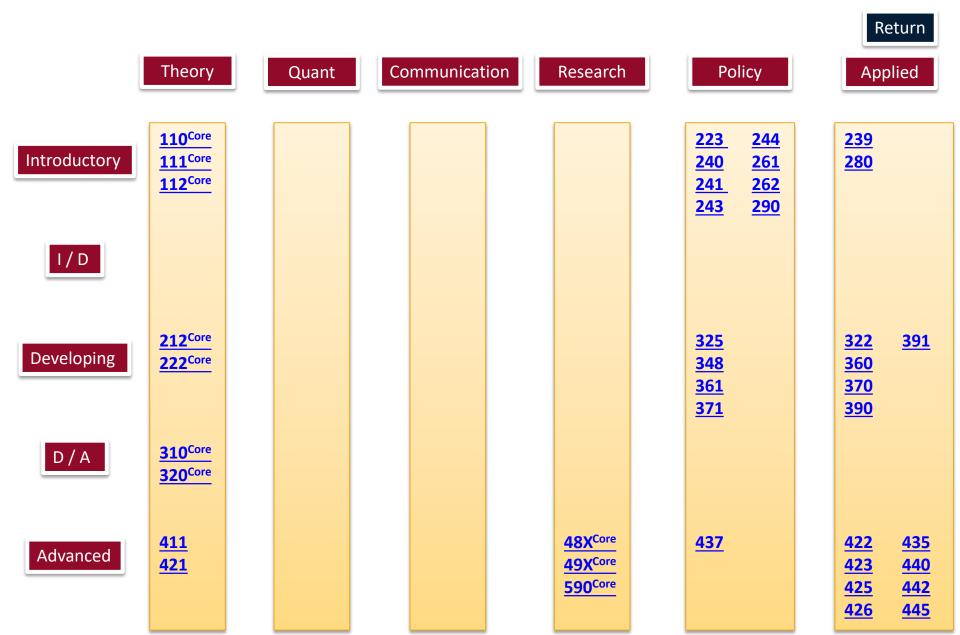
(ii) Communicate sophisticated and complex economic reasoning in written, spoken and/or graphical form.



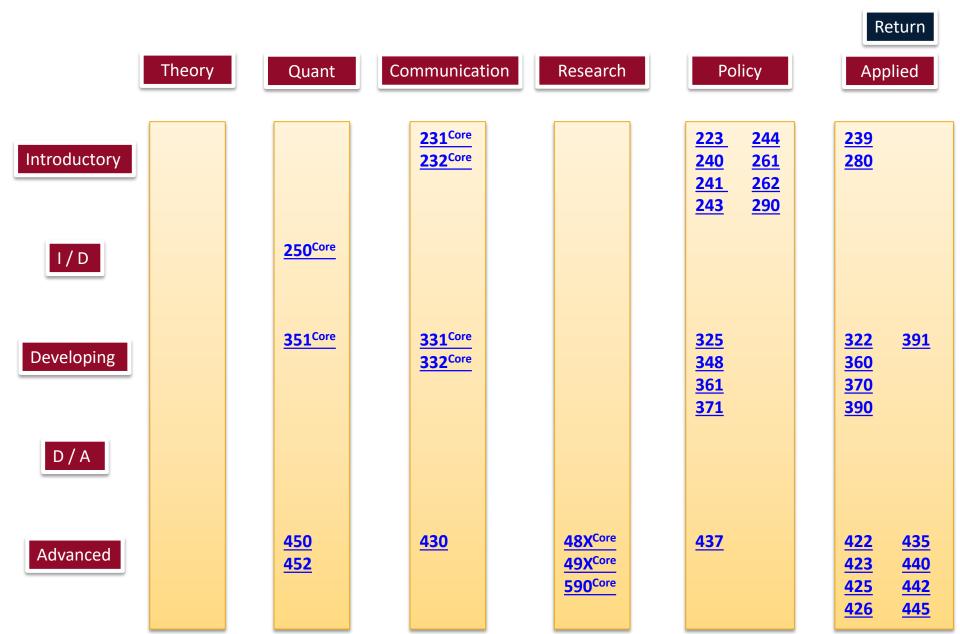
ECON-M-BAH: Communication Skills (iii) Articulate clear and concise arguments that state assumptions and hypotheses, and can be supported by evidence.



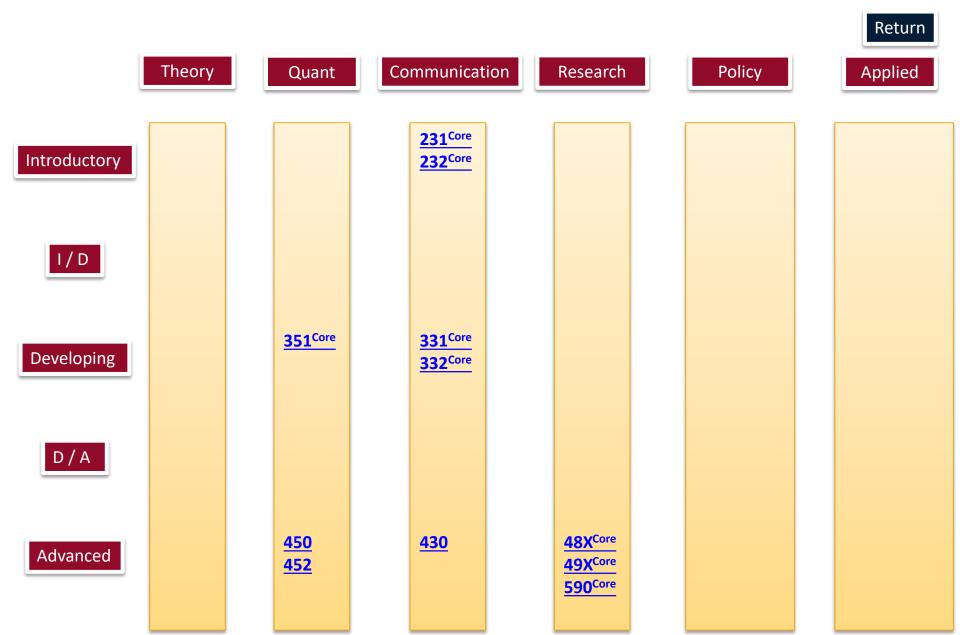
ECON-M-BAH: Awareness of Limits of Knowledge (i) Recognize that conclusions depend on underlying assumptions.



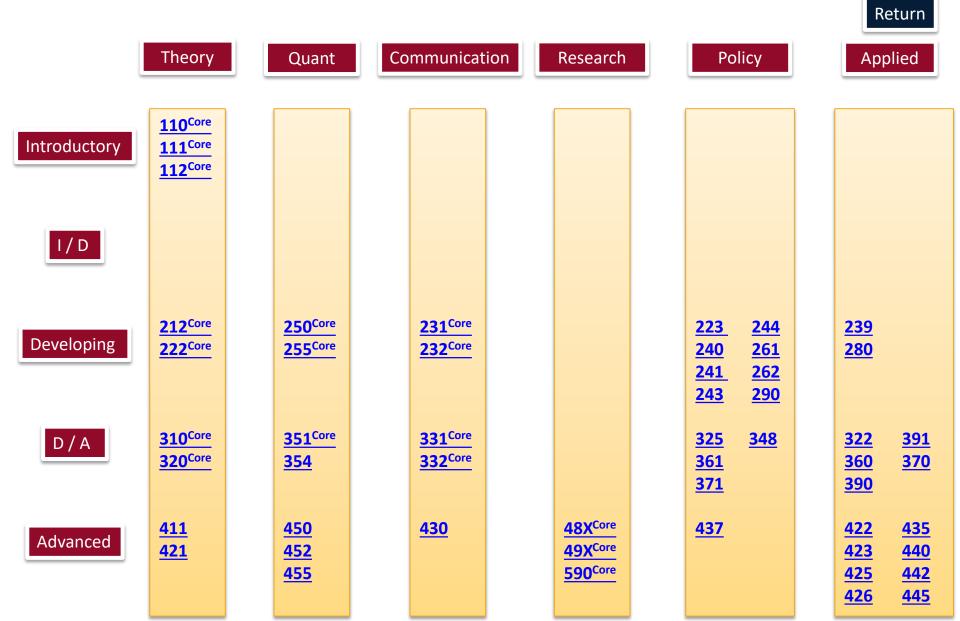
ECON-M-BAH: Awareness of Limits of Knowledge (ii) Understand how data limitations can constrain inference.



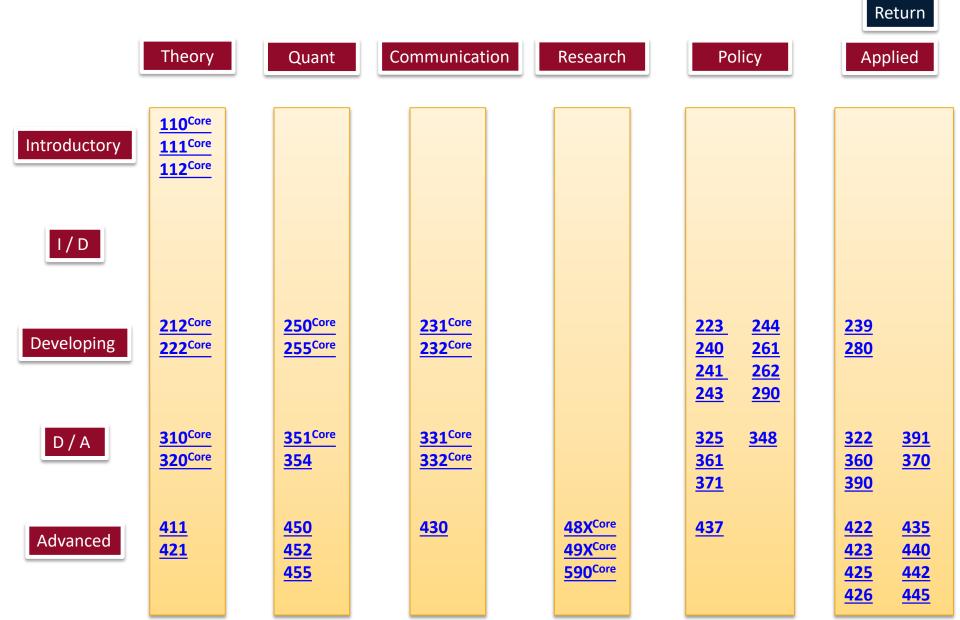
ECON-M-BAH: Awareness of Limits of Knowledge (iii) Distinguish between causal relationships and correlations.



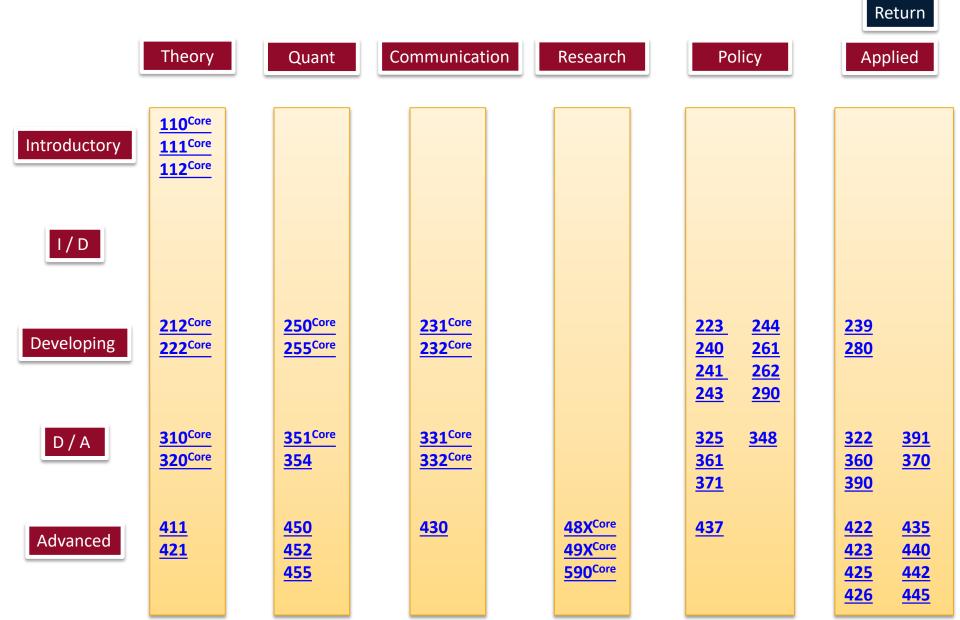
ECON-M-BAH: Autonomy and Professional Capacity (i) Exercise academic, professional and personal behaviour consistent with academic integrity and social responsibility.



ECON-M-BAH: Autonomy and Professional Capacity (ii) Demonstrate an ability to generalize academic skills for use across a broad range of personal and professional decision-making contexts.



ECON-M-BAH: Autonomy and Professional Capacity (iii) Recognize that academic skills lay a foundation for continued curiosity, independent thought, and academic and professional development.



Theory Courses: Calendar Descriptions, Learning Outcomes and Evaluation Methods

ECON 110/6.0 Principles of Economics

Calendar Description:

An introduction to economic analysis of a modern mixed economy, including the roles of government. The microeconomics part of the course analyzes the behaviour of individual consumers and producers and the functioning of the market price system. The macroeconomics part examines the functioning of the economy as a whole, including the determination of national income, the price level, interest rates, the money supply, and the balance of payments.

Course Learning Outcomes:

- (i) Use the basic analytical principles and tools of modern economics to understand and assess observed economic phenomena, contemporary economic problems and government economic policies.
- (ii) Explain how resources are allocated and income is distributed in an economy.
- (iii) Describe and model the behaviour of economic agents, including households, firms and governments, and explain how these behaviours affect the determination of prices and quantities in individual markets for commodities and resources.
- (iv) Describe and model the relationships between aggregate economic variables, including national output, the level of aggregate consumption and investment, interest rates, employment and unemployment, and the average level and rate of change of all prices.
- (v) Explain how government policies influence the aggregate behaviour and performance of an economy.

Evaluation Methods:



ECON 111/3.0 Introductory Microeconomics

Calendar Description:

An introduction to microeconomic analysis of a modern mixed economy. The course analyzes the behaviour of individual consumers and producers, the determination of market prices for commodities and resources, and the role of government policy in the functioning of the market system.

Course Learning Outcomes:

- (i) Use the basic analytical principles and tools of modern economics to understand and assess observed economic phenomena, contemporary economic problems and government economic policies.
- (ii) Explain how resources are allocated and income is distributed in an economy.
- (iii) Describe and model the behaviour of economic agents, including households, firms and governments, and explain how these behaviours affect the determination of prices and quantities in individual markets for commodities and resources.

Evaluation Methods:



ECON 112/3.0 Introductory Macroeconomics

Calendar Description:

An introduction to macroeconomic analysis of the economy as a whole, including the determination of national income, the price level, interest rates, the money supply, and the balance of payments. The principles of monetary and fiscal policy are also examined.

Course Learning Outcomes:

- (i) Use the basic analytical principles and tools of modern economics to understand and assess observed economic phenomena, contemporary economic problems and government economic policies.
- (ii) Describe and model the relationships between aggregate economic variables, including national output, the level of aggregate consumption and investment, interest rates, employment and unemployment, and the average level and rate of change of all prices.
- (iii) Explain how government policies influence the aggregate behaviour and performance of an economy.

Evaluation Methods:



ECON 212/3.0 Microeconomic Theory I

Calendar Description:

Theory of markets and prices: decision-making by individuals and firms, equilibrium conditions under various market structures, and issues of individual and social welfare.

Prerequisite: ECON 110 (or 111 and 112) Corequisite: MATH 12X

Course Learning Outcomes:

- (i) Analyze how consumers' decisions affect the determination of equilibrium market prices and quantities in various microeconomic contexts.
- (ii) Analyze how producers' decisions affect the determination of equilibrium market prices and quantities in various microeconomic contexts.
- (iii) Explain how constrained optimization affects consumers' and producers' decision making.
- (iv) Explain how the structure of markets affects equilibrium market prices and quantities.
- (v) Apply the basic tools of game theory in a variety of microeconomic contexts and information environments.

Evaluation Methods:



ECON 222/3.0 Macroeconomic Theory I

Calendar Description:

A study of the basic models of national income determination and financial markets. The course includes application of policy problems such as inflation, unemployment and balance of payments disequilibria. **Prerequisite:** ECON 110 (or 111 and 112) **Corequisite:** MATH 12X

Course Learning Outcomes:

- (i) Explain and model how individuals make decisions that affect the macro-economy, such as how much to consume and save, or how many hours to work and enjoy leisure.
- (ii) Explain and model how producers make decisions that affect the macro-economy, such as how much to produce, or how many workers to employ and how much capital to use, or what technology to adopt.
- (iii) Explain and model how policy planners make decisions that affect the macro-economy, such as how to respond to domestic or international economic shocks.
- (iv) Describe the equilibrium conditions that characterize the interactions among consumers, producers and policy planners using formal, analytical models and/or written and oral modes of communication.

Evaluation Methods:



ECON 310/3.0 Microeconomic Theory II

Calendar Description:

A rigorous examination of the central core of microeconomic theory. Consumer demand, the theory of production, product and factor markets, general equilibrium and some aspects of welfare economics are covered. The emphasis is on techniques of analysis.

Prerequisite: ECON 212 (min. grade C); MATH 12X; ECON 255

Course Learning Outcomes:

- (i) Describe the structure and underlying assumptions of the standard models used in microeconomic analysis and explain how the models' predictions change when the standard assumptions are relaxed."
- (ii) Identify and solve a variety of constrained optimization problems that arise in microeconomic contexts.
- (iii) Provide clear and concise explanations of the fundamental economic intuition associated with the articulation and resolution of microeconomic problems.
- (iv) Apply the theoretical and analytical tools of microeconomics to investigate and assess contemporary economic problems and phenomena, including those related to information asymmetries, firm structures, and market failures.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Midterm Exam Assignments (Individual)



ECON 320/3.0 Macroeconomic Theory II

Calendar Description:

An advanced study of the determinants of aggregate demand and the structure of Keynesian and new classical models. Policy issues covered include crowding out, choice of monetary policy instruments, and monetary policy and the exchange rate.

Prerequisite: ECON 222 (min. grade C); MATH 12X; ECON 255

Course Learning Outcomes:

- (i) Explain the economic mechanisms at work in several neoclassical models of the aggregate economy, using analytical and mathematical methods to solve examples of the models.
- (ii) Characterize the causes and consequences of short to medium-run fluctuations in economic activity (business cycles)
- (iii) Characterize the effects of a variety of government policies on economic aggregate variables.

Evaluation Methods:



ECON 411/3.0 Topics in Microeconomic Theory

Calendar Description:

Content varies from year to year. Game theory, risk, and externalities are among the topics covered in recent years.

Prerequisite: ECON 310

Course Learning Outcomes:

- (i) Represent strategic situations as normal and extensive form games.
- (ii) Demonstrate competence and understanding of basic game theoretic models, solution concepts, and analytical techniques.
- (iii) Identify and apply the appropriate game theoretic models, concepts and techniques (including Nash equilibrium, backwards induction, and Bayesian updating) to inform design making and predict outcomes in strategic interactions.

Evaluation Methods:



ECON 421/3.0 Topics in Macroeconomic Theory

Calendar Description:

An advanced discussion of selected topics in macroeconomic theory, policy, and evidence. Analysis uses: twoperiod models; linear, rational expectations models; overlapping generations models; and the neoclassical growth model. These methods are applied to such topics as: asset pricing; hyperinflation; exchange-rate overshooting; Ricardian equivalence; international evidence on sources of economic growth. Detailed reference is made to empirical evidence.

Prerequisite: ECON 310 and 320

Course Learning Outcomes:

- (i) Identify major policy issues in macroeconomics, including monetary policy, fiscal policy, social security, inequality.
- (ii) Develop a theoretical framework, such as the overlapping generations model, to study macroeconomic policy issues.
- (iii) Apply the insights from the theoretical framework to study current challenges for the Canadian economy.
- (iv) Discuss possible solutions for macroeconomic challenges facing the Canadian economy.

Evaluation Methods:



Quantitative Courses: Calendar Descriptions, Learning Outcomes and Evaluation Methods

ECON 250/3.0 Introductory Statistics

Calendar Description:

Statistical methods as used in economics. This course introduces statistical hypothesis testing and covers basic methods as far as linear regression analysis.

Prerequisite: ECON 110 (or 111 and 112) **Corequisite:** MATH 12X

Course Learning Outcomes:

- (i) Organize, describe, graph and manipulate quantitative evidence and data in a variety of economic contexts.
- (ii) Appreciate the importance of probability and statistical concepts in the investigation of economic phenomena.
- (iii) Understand, explain and demonstrate the appropriate use of the basic properties of probabilities and probability distributions.
- (iv) Understand, explain and demonstrate the appropriate use of inference and hypothesis testing in a variety of economic contexts.
- (v) Apply the basic methods of linear least-squares estimation.

Evaluation Methods:



ECON 255/3.0 Introduction to Mathematical Economics

Calendar Description:

An introduction to the use of mathematics in economic analysis. The first part of the course will concentrate on techniques for constrained and unconstrained optimization, as applied to problems of firm and consumer behaviour. This will lead to the interpretation of Lagrange multipliers as shadow prices. The second part of the course will show how matrix algebra may be used to study problems of production and allocation in interdependent economies.

Prerequisite: ECON 110 (or 111 and 112); MATH 12X

Course Learning Outcomes:

- (i) Understand the role of mathematics and mathematical modeling in economics.
- (ii) Represent economic models using matrix algebra and calculus.
- (iii) Find equilibrium outcomes in economic environments described by systems of linear equations.
- (iv) Apply various calculus techniques to derive comparative statics results from economic models.
- (v) Formulate and analyze optimization problems in economic settings.

Evaluation Methods:



ECON 351/3.0 Introductory Econometrics

Calendar Description:

Estimation and inference in multivariate econometric models. Emphasizes understanding of methods and their properties, as distinct from their formal theoretical development. Practical tools for preparing and analyzing data with appropriate models are taught using econometric software. **Prerequisite:** ECON 250 (min. grade C); MATH 12X

Corequisite: ECON 255

Course Learning Outcomes:

- (i) Undertake specification, estimation, inference and hypothesis testing related to ordinary least squares regression models.
- (ii) Interpret and evaluate the output from ordinary least squares regression models.
- (iii) Apply ordinary least squares regression models in a variety of economic contexts.
- (iv) Distinguish the main features of related regression models, including ordinary least squares, fixed effects, and difference-in-difference models.
- (v) Appropriately employ statistical and econometric software for regression analysis.

Evaluation Methods:



ECON 354/3.0 Computational Methods in Economics and Finance

Calendar Description:

An introduction to numerical methods as used in economics, finance, and related fields. Topics include optimization, non-linear systems, numerical approximation, and simulation. Includes a major project where students implement economic models or replicate work found in the literature.

Prerequisite: ECON 255

Corequisite: ECON 250

Note: Programming experience is recommended but not required.

Course Learning Outcomes:

- (i) Write efficient and coherent computer code that implement simple to moderately complex mathematical operations.
- (ii) Predict results of standard numerical algorithms when applied to different cases and use routines that code the algorithms to solve economic models.
- (iii) Test and debug code against the economic result it is supposed to produce.
- (iv) As a member of a small team develop and verify a software package related to economics to be used by others that includes documentation and examples.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Assignments (Individual) Online and/or In-Class Quiz Assignments (Group) Other Project (Individual)



ECON 450/3.0 Advanced Econometrics

Calendar Description:

Estimation methods, including least squares and maximum likelihood; specification testing, including t, F, likelihood ratio and Lagrange multiplier tests; serial correlation and heteroskedasticity; dynamic models and simultaneous equation models. Extensive use of calculus and linear algebra.

Prerequisite: ECON 351

Note: Offered concurrently with ECON 852. Students must have department permission prior to registration.

Course Learning Outcomes:

- (i) Read and understand the econometric theory and arguments used in the economics literature.
- (ii) Understand the distinction between terms in econometric jargon as well as their statistical foundations.
- (iii) Be able to identify and correct violations to identification and hypothesis testing.
- (iv) Be proficient in the application of prediction, cross validation and classification models.
- (v) Be proficient in reporting, interpreting, and drawing policy implications from econometric results.
- (vi) Conduct basic econometric analyses of data using a standard software package.
- (vii) Be able to translate data science jargon and provide the intuition of how a variety of algorithms work.
- (viii) Explain the trade-offs between alterative algorithms and the role of hyperparameters within each.
- (ix) Be able to explain why results from econometric strategies differ from machine learning algorithms.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.)

Assignments (individual)

Midterm exams

Final exam



ECON 455/3.0 Mathematical Economics

Calendar Description:

Applications of mathematics in economic analysis. Topics covered will generally include a review of optimization techniques as applied to consumer and producer theory, comparative statics, the envelope theorem, duality theory, welfare economics and general equilibrium theory. Optimization techniques to be covered will include nonlinear and dynamic programming.

Prerequisite: ECON 255; ECON 310

Note: Offered concurrently with ECON 855. Students must have department permission prior to registration.

Course Learning Outcomes:

- (i) Formulate and solve nonlinear programs, then applying these methods to economic problems.
- (ii) Construct dynamical systems and use invariant distribution theory to study long run behavior in these dynamic systems.
- (iii) Describe and employ the main distributions used in statistical analysis and hypothesis testing in economics.
- (iv) Construct and employ models of human behavior and economic decision making.

Evaluation Methods:



Communication Courses: Calendar Descriptions, Learning Outcomes and Evaluation Methods

ECON 231/3.0 Emergence of the Modern Industrial Economy

Calendar Description:

An examination of the origins of modern economic growth concentrating on the industrial revolution in Britain and the prior developments leading up to it. Some attention is directed to the early followers of the changes initiated in Britain.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Identify and describe the key features of the emergence of modern economic growth.
- (ii) Apply the basic analytical principles and tools of modern economics to understand and assess long run patterns in observed economic phenomena related to growth, development and economic transformation.
- (iii) Articulate a well formed research question and engage in a quantitative and qualitative investigation in an effort to fully explore and resolve that question.
- (iv) Use extended written communication strategies to provide clear and concise descriptions and explanations of sophisticated and multi-dimensional theoretical and empirical assessments of long run economic transformations.
- (v) Read, summarize and exploit the lessons drawn from a variety of economic and historical texts.

Evaluation Methods:



ECON 232/3.0 Diffusion of Modern Economic Growth

Calendar Description:

The spread of industrialization and economic development in Europe and areas beyond in the late 19th and early 20th centuries. The geographic focus may differ from year to year but Germany, Russia and Japan are usually included.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Identify and describe the key features of the diffusion of modern economic growth.
- (ii) Apply the basic analytical principles and tools of modern economics to understand and assess long run patterns in observed economic phenomena related to growth, development and economic transformation.
- (iii) Articulate a well formed research question and engage in a quantitative and qualitative investigation in an effort to fully explore and resolve that question.
- (iv) Use extended written communication strategies to provide clear and concise descriptions and explanations of sophisticated and multi-dimensional theoretical and empirical assessments of long run economic transformations.
- (v) Read, summarize and exploit the lessons drawn from a variety of economic and historical texts.

Evaluation Methods:



ECON 331/3.0 Economic History of North America to 1865

Calendar Description:

Uses the methods of economic analysis to examine the main features of the development of Canada before Confederation and the United States through the Civil War.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Identify and describe the key features of the emergence of modern economic growth in North America.
- (ii) Apply advanced theoretical and empirical economic tools to understand and assess long run patterns in observed economic phenomena related to the growth, development and economic transformation of the North American economies.
- (iii) Articulate a well formed research question and engage in a quantitative and qualitative investigation in an effort to fully explore and resolve that question.
- (iv) Use extended written communication strategies to provide clear and concise descriptions and explanations of sophisticated and multi-dimensional theoretical and empirical assessments of long run economic transformations.
- (v) Read, summarize and exploit the lessons drawn from a variety of economic and historical texts.

Evaluation Methods:



ECON 332/3.0 Economic History of North America since 1865

Calendar Description:

The development of the economies of Canada from Confederation and the U.S. since the Civil War. A comparative approach to the development of the two economies is taken.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Identify and describe the key features of the economic and technological maturation of the North American economies.
- (ii) Apply advanced theoretical and empirical economic tools to understand and assess long run patterns in observed economic phenomena related to the growth, development and economic transformation of the North American economies.
- (iii) Articulate a well formed research question and engage in a quantitative and qualitative investigation in an effort to fully explore and resolve that question.
- (iv) Use extended written communication strategies to provide clear and concise descriptions and explanations of sophisticated and multi-dimensional theoretical and empirical assessments of long run economic transformations.
- (v) Read, summarize and exploit the lessons drawn from a variety of economic and historical texts.

Evaluation Methods:



ECON 430/3.0 Issues in Economic History

Calendar Description:

An advanced course in economic history that explores a selection of topics debated in the literature. An emphasis is placed on the use of economic analysis to deal with historical issues. The topics vary from year to year and usually concern mainly, but not exclusively, North America.

Prerequisite: ECON 231 or 232 or 331 or 332

Corequisite: ECON 310; ECON 351

Note: Offered concurrently with ECON 831. Students must have department permission prior to registration.

Course Learning Outcomes:

- (i) Identify and test explanations for economic growth.
- (ii) Apply economic theory in a variety of economic and historical contexts.
- (iii) Interpret models of causal inference from economics in a variety of historical contexts.
- (iv) Use statistical and econometric software to analyze long run and historical evidence and data.
- (v) Articulate arguments using theory and data in extended written form.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Midterm Exam Assignments (Individual) Research Paper



Capstone Research Courses: Calendar Descriptions, Learning Outcomes and Evaluation Methods

ECON 480-489/3.0 Honours Seminars in Microeconomics

Calendar Description:

Honours seminar on microeconomic topics.

Prerequisite: Level 4; min. Cumulative GPA = 1.90; min. GPA = 2.60 in 30.0 ECON units; 9.0 units from (ECON 255; ECON 310; ECON 320; ECON 351). Students must obtain permission from the department to register.

Course Learning Outcomes:

- (i) Articulate a well formed research question that is amenable to quantitative and qualitative economic investigation.
- (ii) Read, analyze and exploit the tools and techniques drawn from a variety of theoretical and empirical economic texts.
- (iii) Select and correctly apply appropriate theoretical, analytical and empirical economic approaches to investigate research questions from a variety of economic contexts.
- (iv) Articulate an appropriate resolution to research questions, while recognizing the limitations and constraints inherent in any proposed resolution.
- (v) Use extended written and oral communication strategies to provide clear and concise descriptions and explanations of theoretical or empirical economic investigations.
- (vi) Communicate respectful and constructive peer-to-peer criticism, guidance and support.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Research Paper Presentation / Participation



ECON 490-499/3.0 Honours Seminars in Macroeconomics

Calendar Description:

Honours seminar on macroeconomic topics.

Prerequisite: Level 4; min. Cumulative GPA = 1.90; min. GPA = 2.60 in 30.0 ECON units; 9.0 units from (ECON 255; ECON 310; ECON 320; ECON 351). Students must obtain permission from the department to register.

Course Learning Outcomes:

- (i) Articulate a well formed research question that is amenable to quantitative and qualitative economic investigation.
- (ii) Read, analyze and exploit the tools and techniques drawn from a variety of theoretical and empirical economic texts.
- (iii) Select and correctly apply appropriate theoretical, analytical and empirical economic approaches to investigate research questions from a variety of economic contexts.
- (iv) Articulate an appropriate resolution to research questions, while recognizing the limitations and constraints inherent in any proposed resolution.
- (v) Use extended written and oral communication strategies to provide clear and concise descriptions and explanations of theoretical or empirical economic investigations.
- (vi) Communicate respectful and constructive peer-to-peer criticism, guidance and support.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Research Paper Presentation / Participation



ECON 452/3.0 Applied Econometrics

Calendar Description:

Project-based. Emphasizes problems in specifying and estimating econometric models, methods available for detecting and handling these problems, and economic applications. Extensive use of matrix algebra. **Prerequisite:** ECON 255; ECON 351

Course Learning Outcomes:

- (i) Use industry-standard software to manipulate and explore data sets, interpreting output from basic commands, and understanding how to handle common errors, problems and inconsistencies.
- (ii) Choose among common specifications of multivariate regressions and probits, while using the results produced by software to test hypotheses, form predictions with confidence intervals, and identify potential problems with common economic models.
- (iii) Understand how to relax limitations of standard (ideal) assumptions in econometric models, to handle complex data sets and tackle deeper questions of economic importance.
- (iv) Read applied econometric literature using techniques covered in the course to find the key aspects of the analysis and possibly weaknesses.
- (v) Articulate a research question and communicate in written form a detailed discussion of empirical evidence related to this question.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Midterm Exam Assignments (Individual) Assignments (Group) Other Project (Individual)



ECON 590/6.0 Honours Thesis

Calendar Description:

The thesis is a major research paper undertaken under the supervision of an Economics Department faculty member. The thesis proposal should be presented to the Department for approval by 31 October in the graduating year and the completed thesis must be submitted to the Department by beginning of the winter term examination period (April).

Prerequisite: Permission to take this course is subject to approval by the Department. Students who are considering the thesis option must consult with the Thesis Coordinator and Chair of Undergraduate Studies prior to the summer registration period. Typically only those with an ECON GPA over 3.70 are considered. Enrolment is limited.

Course Learning Outcomes:

- (i) Articulate a well formed research question that is amenable to quantitative and qualitative economic investigation.
- (ii) Read, analyze and exploit the tools and techniques drawn from a variety of theoretical and empirical economic texts.
- (iii) Select and correctly apply appropriate theoretical, analytical and empirical economic approaches to investigate research questions from a variety of economic contexts.
- (iv) Articulate an appropriate resolution to research questions, while recognizing the limitations and constraints inherent in any proposed resolution.
- (v) Use extended written communication strategies to provide clear and concise descriptions and explanations of theoretical or empirical economic investigations.
- (vi) Engage in constructive, respectful and articulate communication with a research supervisor on issues related to the selection of a research question, investigation of relevant literature, theoretical and empirical methodological choice and research findings.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Research Paper



Policy Courses: Calendar Descriptions, Learning Outcomes and Evaluation Methods

ECON 223/3.0 Macroeconomic Policy

Calendar Description:

Current topics in macroeconomic policy which may include: unemployment and policies to reduce it, government budget deficits, supply-side controversies, financial deregulation, policy coordination, and management of exchange rates. Comparison of policies in Canada, the United States, and other OECD countries.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Identify the essential features of a macroeconomy and diagnose macroeconomic problems.
- (ii) Explain how governments use fiscal and monetary policies to stabilize an economy or boost its growth.
- (iii) Describe how exchange rates are managed, and the pros and cons of various exchange rate regimes.
- (iv) Describe Keynesian and Austrian views on the generation and management of the business cycle in a macroeconomy.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Assignments (Individual) Presentation / Participation



ECON 240/3.0 Canadian Tax Policy

Calendar Description:

The incentive effects of taxes on the allocation of resources in the economy and their impact on the distribution of wealth in Canada. Reviews Canadian tax policy and evaluates the effects of various federal and provincial taxes on the behaviour of households and firms.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Provide an overview of the Canadian tax system and describe the context for discussions of tax policy design.
- (ii) Identify and describe the theoretical characteristics of a good tax system, including the efficiency of taxation, the incidence of taxation, the incentive effects of taxation and the concept of optimal taxation.
- (iii) Apply the context and theory to assess the operation of the Canadian tax system that is in place today.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Midterm exams Final exam



ECON 241/3.0 Economic Aspects of Selected Social Issues

Calendar Description:

An application of economic analysis to a selection of public policy issues. The topics covered will vary from year to year but examples include regulation of agricultural and industrial markets, trade policy, natural resource policy, property rights and the external effects of private activities. This course should be of special interest to students of law, political studies and sociology as well as economics.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Analyze and describe the important economic aspects of a range of social policy issues. These issues may include poverty, child care, health care and Indigeneity.
- (ii) Appreciate and be able to articulate the moral, ethical and political attributes that inform our economic analysis of these issues.
- (iii) Articulate the key dimensions of a quantitative and qualitative investigation of a specific social policy issue.
- (iv) Use extended written communication strategies to provide clear and concise descriptions and explanations of the theoretical and empirical aspects of a social policy issue.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Assignments (Individual) Reading Critique Essay



ECON 243/3.0 The Economics of Health Care

Calendar Description:

An economic analysis of modern health care institutions, organizations, and markets, both generically and in the Canadian context. A discussion of current Canadian health policy debates and various policy options and reform proposals.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Describe differing policies in Beveridgean versus Bismarckian health care systems.
- (ii) Describe physicians motivations and explain how these motivations affect healthcare delivery.
- (iii) Describe and explain the key features of a variety of healthcare and health insurance systems.
- (iv) Assess a variety of healthcare policies, including pharmacare, long-term care for the elderly, various systems of health insurance, hospital administration, hospital wait times, and external versus self-regulation.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Online and/or In-Class Quiz Presentation / Participation



ECON 244/3.0 The Economics of Indigenous Communities

Calendar Description:

An economic critique of policies past and present with regard to First Nations, Inuit, and Métis peoples living in Canada, with reference to relevant cultural, historic, geographic, and governance contexts. In some years material may be more comparative and international in scope. **Prerequisite:** ECON 110

Course Learning Outcomes:

- (i) Characterize the cultures and summarize the histories of the major indigenous groups in Canada, identifying those aspects of culture and history which have relevance for production and trade today.
- (ii) Describe necessary conditions for prosperity and economic growth, distinguishing between the responsibilities of government, markets, communities, and individuals.
- (iii) Identify the economic incentives implicit in various governance, fiscal, ownership, and resource management arrangements.
- (iv) Interpret economic growth or economic stagnation in particular situations.
- (v) Discuss culturally sensitive strategies for economic growth in indigenous communities.
- (vi) Articulate and communicate economic perspectives in extended written, oral or illustrative form.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Midterm Exam Final Exam Research Project (Group) Presentation / Participation (Group)



ECON 261/3.0 Canadian Labour Relations

Calendar Description:

An analysis of the Canadian labour relations system in an economic setting. The socio-economic institutional framework of the industrial and collective bargaining system in Canada provides the background for an analysis of some major emerging issues, such as white collar unionism, unions in the public sector, the public interest in emergency disputes, and the impact of technological change.

Prerequisite: ECON 110

Course Learning Outcomes:

N/A

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) $N/\!A$



ECON 262/3.0 Labour Markets and Gender Differences

Calendar Description:

A Canadian perspective on labour market theories, trends, policies and the analysis of differences by gender in labour demand, labour supply, and wages.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Describe how labour markets operate, with special attention paid to family and gender differences in the determinants of labour supply and demand.
- (ii) Explain why wages, employment and other economic outcomes vary across labour markets and labour market participants.
- (iii) Extend descriptions and explanations of labour market outcomes to the analysis of broader public policy issues, including but not confined to retirement, reliance on income support, access to employment insurance and child care.
- (iv) Apply theoretical analysis to evidence and case studies from Canadian and US labour markets.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Midterm exams Final exam



ECON 290/3.0 Environmental Economics and Assessment

Calendar Description:

An examination of the economic principles and practices for using environmental resources such as air, water, and natural environments. The economically optimal use of these resources is contrasted with actual uses in modern economies. Government policies are examined in theory and in practice. Cost benefit analysis is presented as a technique for evaluating public sector projects using environmental resources. **Prerequisite:** ECON 110

Course Learning Outcomes:

- (i) Apply basic algebra and graphical analysis in the context of environmental valuation, issues and policies in an economic context.
- (ii) Communicate why it is important to include nature in economic models, how economists value nature, and the process and results of economic analysis of environmental issues and policies through a variety of oral, written, analytical and graphical methods.
- (iii) Identify and apply appropriate economic models to critically analyse real-world environmental problems and policies.

Evaluation Methods:



ECON 325/3.0 International Trade Policy

Calendar Description:

An introduction to the theory of comparative advantage followed by a study of trade policies in developed and developing countries including tariffs and quotas, licensing arrangements, anti-dumping and safeguard mechanisms, domestic content rules and other non-tariff barriers, and multilateral arrangements. **Prerequisite**: ECON 212

Course Learning Outcomes:

N/A

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) $N/\!A$



ECON 348/3.0 Law and Economics

Calendar Description:

Costs and benefits of legal rules. Among the topics covered are: the justification, acquisition, scope and taking by the state of property rights, the enforcement of and remedies for breach of contract, the assignment of liability in traffic accidents and harm from dangerous products, the costs of litigation and the optimal severity of punishment for crime with special reference to the death penalty.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Appreciate and articulate the differences between economic and legal thinking about the design of laws.
- (ii) Appreciate and explain the evolution and the economic importance of property rights, and describe the ways in which these rights are adapted to specific situations.
- (iii) Appreciate and explain how the form of a contract and its interpretation by the courts can affect the behaviour of the parties involved.
- (iv) Appreciate and articulate how various laws and practices governing the tort system, such as the allocation of court costs and the standard of proof, affect the incentives to engage in risky activities, take precautions and file or settle a lawsuit.
- (v) Explain the influence of economic models of imperfect competition in the design and practice of combines policies in North America.
- (vi) Appreciate and describe patterns and trends in criminal behaviour and explain how the design and enforcement of criminal law can affect these patterns and trends.

Evaluation Methods:



ECON 361/3.0 Income Distribution and Problems of Inequality

Calendar Description:

A review of theories of the principal determinants of the distribution of income and wealth including labour supply, life-cycle savings, ability and investment in human capital, discrimination, intergenerational transfer mechanisms. Also examined are the distributional aspects of government tax transfer and social security programs.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Measure and analyze poverty, inequality and policies related to income redistribution.
- (ii) Estimate and describe trends in inequality, with a particular focus on inequality in Canada.
- (iii) Explain theories of the principle determinants of income distribution.
- (iv) Articulate the relevance and shortcomings of empirical evidence on inequality and its sources.

Evaluation Methods:



ECON 371/3.0 Economics of Regulation

Calendar Description:

Examines regulated industries such as electrical utilities, communication, transportation and agriculture. Addresses traditional questions relating to pricing rules and some recent work in political economy that attempts to explain why society has adopted the particular form of intervention that has occurred. **Prerequisite:** ECON 212

Course Learning Outcomes:

- (i) Describe and employ economic theories associated with natural monopolies.
- (ii) Construct and employ economic models of regulation involving uncertainty and asymmetric information.
- (iii) Apply economic models of regulation across a variety of real world economic settings.

Evaluation Methods:



ECON 437/3.0 Cost-Benefit Analysis

Calendar Description:

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 macroeconomic goals are also considered. **Prereguisite:** ECON 255; ECON 310

Course Learning Outcomes:

- (i) Integrate economic assessments into cost-benefit and cost-effectiveness studies.
- (ii) Apply economic theory to the measurement of financial, fiscal, environmental and social benefits and costs of projects and policies.
- (iii) Recognize and apply theories of opportunity cost to the use of public funds, foreign exchange and labour.
- (iv) Apply measurement tools relevant to infrastructure, social and extractive industry projects and policies.

Evaluation Methods:



Applied Theory Courses: Calendar Descriptions, Learning Outcomes and Evaluation Methods

ECON 239/3.0 Economic Development

Calendar Description:

A survey of the various economic theories and models elaborating the process of development. The course considers the meaning of economic development; the fundamental analytics of economic growth; the barriers to growth; balanced and unbalanced strategies of growth; population, employment and technology problems; foreign-trade and foreign aid issues.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Define and describe key dimensions of the process of economic development, especially with regard to low income countries.
- (ii) Identify, access and apply commonly used measures of key dimensions of economic development.
- (iii) Explain the central concepts associated with institutional economic analysis and provide examples of the role of institutions in shaping the development process.
- (iv) Describe specific economic problems faced by individuals in developing countries and formulate possible policy responses based on economic reasoning.
- (v) Discuss key issues faced by developing countries in their historical and current dealings with global economy through trade and financial flows.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Midterm Exam Assignments (Individual) Other Project (Individual)



ECON 280/3.0 Population and Economic Change

Calendar Description:

An examination of the interrelationships between changes in the size, composition and distribution of population and changes in the economy. Application is made of some elementary concepts of economic theory and some basic techniques of demographic analysis is are introduced. Illustrations are drawn from both the Canadian and the international settings.

Prerequisite: ECON 110

Course Learning Outcomes:

- (i) Become familiar with vital statistics and their use in projecting life expectancy, population growth, and the age structure of a population.
- (ii) Describe historic changes in fertility, mortality, migration, population growth, and the standard of living.
- (iii) Describe the influence of economic conditions such as prices and wages on fertility, mortality, and migration both legal and illegal.
- (iv) Describe the influence of population size, growth, and age composition on the standard of living and its sustainability.
- (v) Identify, compare, and create theoretical models which relate economic change and population change.
- (vi) Identify, defend, and apply sound principles of policy making with reference to issues of population change.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Midterm Exam Assignments (Individual) Other Project (Individual)



ECON 322/3.0 Financial Markets and Risk Management

Calendar Description:

An in-depth coverage of portfolio selection theory, performance evaluation and derivative pricing theory. Portfolio risk management and hedging are introduced. Discussions on widely used derivative products including futures and options. Students will be exposed to the most recent developments in financial markets. **Prerequisite:** ECON 212; ECON 250; MATH 12X

Course Learning Outcomes:

- (i) Understand and apply mean-variance portfolio theory.
- (ii) Understand and empirically test the capital asset pricing model.
- (iii) Test the efficient market hypothesis and explore deviations from the hypothesis.
- (iv) Develop and apply pricing models for financial assets such as equity, bonds, futures and options.

Evaluation Methods:



ECON 360/3.0 Labour Economics

Calendar Description:

An analytical course covering topics in labour supply analysis, the economics of human capital, labour demand, the operation of labour markets, the economic behaviour and effect of unions, and selected aspects of wage structure.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Understand and explain how various market factors and government welfare programs affect the decision of an individual to work.
- (ii) Analyze the effects of government regulations on labour market outcomes.
- (iii) Explain how non-monetary aspects of jobs and occupations affect labour market outcomes.
- (iv) Explain the factors that affect an individual's decision to acquire education and on-the-job training.
- (v) Explain the factors that affect how firms design jobs and employment contracts.

Evaluation Methods:



ECON 370/3.0 Urban and Regional Economics

Calendar Description:

Topics vary from year to year, reflecting the interests of students and the instructor. One-third of the course is devoted to spatial theory and two-thirds to the application of economic theory to such problems as optimal city size, urban public finance, pollution and aesthetics, and housing, transportation and poverty problems in the urban setting.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Explain various models of city structure, and relate these models to maps of cities.
- (ii) Explain features of the urban economic experience, including the productivity impact of face to face activity in city centres, lower rates of unemployment in larger cities, the acquisition of specialized skills by urban workers.
- (iii) Estimate the costs of congestion and explain financing models for mass transit.
- (iv) Describe the distribution of housing by income across city spaces.
- (v) Describe financing for provision of public goods.
- (vi) Explain patterns of population growth and city growth.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Midterm Exam



ECON 390/3.0 Natural Resource Economics

Calendar Description:

The study of the exploitation and conservation of natural resources such as fisheries, forestry, minerals and energy, and the implications for public policy using tools of economic analysis. Issues relating to the quality of the environment and role of natural resources in the growth and development of the economy are also emphasized.

Prerequisite: ECON 212

Course Learning Outcomes:

- (i) Solve and perform comparative statics on the optimization problem of a competitive resource extraction firm.
- (ii) Use computed resource rents and economic depreciation of extractive firms to recommend appropriate investment paths in sovereign wealth funds with reference to sustainable economic outcomes.
- (iii) Predict extraction paths of competitive extractive industries with reference to backstop technologies and changes in prices, costs, and interest rates.
- (iv) Compute extraction paths under a variety of market structures, including monopoly, oligopoly and competition.
- (v) Compute sustainable extraction paths for renewable resources such as forests and fisheries.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Midterm Exam



ECON 391/3.0 Topics in Environmental Economics

Calendar Description:

This course provides a solid understanding of the economic causes and consequences of environmental problems and suggests practical solutions. Microeconomic analysis is used to help address a range of issues related to the environment. likely topics include global environmental problems, sustainable development, environmental law, strategic models of regulation, environmental ethics, and bioeconomic models. **Prereguisite:** ECON 212

Course Learning Outcomes:

- (i) Think critically about the complex nature of environmental decision-making.
- (ii) Apply analytical and economic reasoning skills in a variety of economic contexts using case studies that address real world situations.
- (iii) Communicate and explain economic analysis of environmental problems and policies orally and in writing, individually and in groups.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Assignments (Individual) Online and/or In-Class Quiz Research Paper Assignments (Group)



ECON 422/3.0 Monetary Economics

Calendar Description:

Topics in monetary theory and policy, depending upon the interests of the instructor and students. Examples include the foundations of monetary theory; money supply and demand; portfolio choice; monetary aspects of the balance of payments; money and economic growth; financial markets; the term structure of interest rates. **Prerequisite:** ECON 310

Course Learning Outcomes:

- (i) Understand both the conditions that give rise to money as a medium of exchange and its implications for the level of economic activity, the distribution of the surplus from production among the different participants and trade, and economic welfare overall.
- (ii) Be able to describe and characterize explicitly (using both words and mathematics) economic equilibria in which assets values are to a significant extent associated with their liquidity premia. That is, there use in facilitating exchange, either directly or indirectly.
- (iii) Understand the role of expectations, or more generally beliefs about the future actions of economic agents, in determining the values of assets.
- (iv) Understand and describe both the rationales behind and possible unintended effects of monetary policy of the type carried out by modern central banks.
- (v) Understand and describe the phenomenon of inflation---in particular with regard to the conflicting theoretical views and empirical evidence regarding the extent to which it is deleterious or beneficial.

Evaluation Methods:



ECON 423/3.0 Topics in Financial Economics

Calendar Description:

Selected topics in financial economics. Topics may include: the microeconomics of banking; pricing of financial instruments; risk management and financial markets infrastructure; financial choices under uncertainty and general equilibrium. Students are directed to the undergraduate website for a detailed description yearly. **Prerequisite:** ECON 310 **Corequisite:** ECON 351

Course Learning Outcomes:

- (i) Understand how the banking industry, with particular emphasis on investment banks, and more generally, financial intermediaries operate and make decisions.
- (ii) Explain why and how financial intermediaries interact with, and benefit the real economy.
- (iii) Identify and analyze possible problems and economic inefficiencies that can result in financial crises.
- (iv) Describe and analyze the constructive role careful and prudent government supervision can play in managing financial intermediation, with particular emphasis on financial crises.

Evaluation Methods:



ECON 425/3.0 International Trade Theory and Policy

Calendar Description:

This course deals with the theory of international trade. It explores theories that offer explanations for why countries trade, what determines the pattern of trade, and the normative and positive effects of trade. These theories include the theory of comparative advantage, the factor-proportions theory of trade, imperfect competition as a determinant of trade, and other recent theoretical developments. The course also examines empirical studies of trade theories, trade barriers and trade policy, and trade and economic development. **Prerequisite:** ECON 310

Course Learning Outcomes:

- (i) Identify and describe the forces which drive international trade in various theoretical models of trade.
- (ii) Identify and describe the positive and normative effects (at individual, national, and world levels) of international trade in various theoretical models of trade.
- (iii) Identify and describe the positive and normative effects (at individual, national, and world levels) of changes in trade policy in various theoretical models of trade.
- (iv) Describe the methodologies and results of various empirical studies which seek to describe trade patterns and test theoretical models of trade.
- (v) Solve and intuitively explain the results of numerical examples of various theoretical models of international trade.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Final Exam Midterm Exam Assignments (Individual) Online and/or In-Class Quiz



ECON 426/3.0 International Macroeconomics

Calendar Description:

The study of international capital flows, sovereign debt, and international risk sharing, real exchange rates and international goods pricing, topics in international finance such as exchange-rate modeling and speculative attacks, and policy topics such as fiscal and monetary policy effects and exchange-rate regime choice. **Prerequisite:** ECON 310; ECON 320

Course Learning Outcomes:

- (i) Analyze data to provide updated intelligence on events in the international financial system.
- (ii) Apply econometric tools to test theories in international finance.
- (iii) Evaluate arguments about key features of the international monetary system.
- (iv) Adopt and apply models from economic theory to analyze events in the international macroeconomy.

Evaluation Methods:



ECON 435/3.0 Development Economics

Calendar Description:

Microeconomic issues: land, labor, credit, and insurance markets; duality; alternate views of the role and evolution of non-market institutions in the development process. Macroeconomic issues: urban migration; inequality and development; population growth and technical change; internal factor accumulation versus TFP growth.

Prerequisite: ECON 310

Corequisite: ECON 351

Note: Offered concurrently with ECON 835. Students must have department permission prior to registration.

Course Learning Outcomes:

- (i) Access and apply commonly used measures of key dimensions of economic development and provide critical analysis of their interpretation and limitations.
- (ii) Use the analytical tools associated with institutional economics to provide theoretical analyses of key issues faced by individuals in developing countries.
- (iii) Critically assess the methods and implications of existing empirical analyses of microeconomic and macroeconomic data associated with key development issues.
- (iv) Apply basic econometric methods to identify causal relationships in available economic data associated with key development issues.
- (v) Explain specific economic problems faced by individuals in developing countries and formulate possible policy responses based on formal economic reasoning and empirical analysis.

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) Assignments (Individual) Research Paper Other Project (Individual)

Presentation / Participation



ECON 440/3.0 Public Economics

Calendar Description:

The study of public goods, redistribution of income, and taxation, with emphasis on efficiency and equality as criteria for decision-making in the public sector.

Prerequisite: ECON 310

Course Learning Outcomes:

- (i) Understand different roles that the public sector plays in modern market economies, and the economic and social rationales behind them.
- (ii) Apply the techniques (largely mathematical) of welfare economics to assess economic outcomes with regard to both their Pareto efficiency and their conformity with various standards for equity.
- (iii) Understand the various effects of taxation in a market economy, with particular emphasis on the importance of incentives and information, and on the role of the ability of market participants to affect prices (i.e. market power).
- (iv) Apply the techniques of optimal policy analysis and demonstrate the insights gleaned from their use with regard to the key issues in policy design.
- (v) Understand the design of economic mechanisms intended to align incentives in the presence of asymmetric (i.e. private) information.

Evaluation Methods:



ECON 442/3.0 Topics in Public Economics

Calendar Description:

Selected topics in the theory of public economics and related policy questions. Content varies from year to year. Topics may include: the role of asymmetric information in public economics, tax policy, design of redistributive programs, fiscal federalism, and selected aspects of Canadian public policy. **Prerequisite:** ECON 310

Course Learning Outcomes:

N/A

Evaluation Methods:

(Consult course syllabus for current evaluation methods.) $N/\!A$



ECON 445/3.0 Industrial Organization and Public Policy

Calendar Description:

An analysis of industry structure, conduct and performance in the Canadian economy, including the major features and current issues of competition policy.

Prerequisite: ECON 310

Course Learning Outcomes:

- (i) Explain the economic and welfare implications of different market structures.
- (ii) Explain and employ elements of modern game theory in a variety of economic contexts.
- (iii) Apply game theory to oligopoly models, drawing conclusions about market structure and efficient economic performance.
- (iv) Apply theoretical models to enrich understanding of real world issues in competition policy.

Evaluation Methods:

