### ECONOMICS (ECON)

**ECON F100X Introduction to Economic Analysis**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
This course will introduce you to the fundamentals of economic analysis and reasoning and provide you the tools to analyze the behavior of individuals, firms, communities and government under conditions of unlimited wants and scarce resources.  
**Prerequisites:** Placement in WRTG F111X.  
**Attributes:** UAF Core Political Economy, UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F111X The Economy of Rural Alaska**  \((an, a)\)  
3 Credits  
Offered Fall and Spring  
Examine the significance of Alaska Native economies and their role in the modern Alaska economy. To include the challenges facing rural communities, and the role of social and cultural capital. Economic indicators which incorporate Alaska Native health, education, food, energy and resource security, and economic opportunity are evaluated also.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F201X Principles of Economics I: Microeconomics**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Price and market theory, income distribution, public policy, labor markets, market structure, and externalities.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F202X Principles of Economics II: Macroeconomics**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Analysis and theory of national income, money and banking, stabilization policy, and international trade and finance.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F227 Introductory Statistics for Economics and Business**  
3 Credits  
Offered Fall, Spring and Summer  
Introduces statistical theory and methods with an emphasis on economics and business applications. Includes descriptive statistics, probability and probability distribution, statistical inference and regression modelling.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F235X Introduction to Natural Resource Economics**  \((s, a)\)  
3 Credits  
Offered Fall  
Microeconomic principles and their application to natural resource issues. Topics include supply, demand, marginality, optimality, elementary production economics, economic rent and comparative advantage. These principles applied to agency budget allocation decisions, multiple use, resource valuation, conservation, market failure and public outdoor recreation problems.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F236X Introduction to Environmental Economics**  \((s, a)\)  
3 Credits  
Offered Fall  
Attributes: UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F237X Environmental Economics**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
These principles applied to agency budget allocation decisions, multiple use, resource valuation, conservation, market failure and public outdoor recreation problems.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F238X Introduction to Environmental Policy**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Examine the significance of Alaska Native economies and their role in the modern Alaska economy. To include the challenges facing rural communities, and the role of social and cultural capital. Economic indicators which incorporate Alaska Native health, education, food, energy and resource security, and economic opportunity are evaluated also.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F239X Introduction to Environmental Law**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Examine the significance of Alaska Native economies and their role in the modern Alaska economy. To include the challenges facing rural communities, and the role of social and cultural capital. Economic indicators which incorporate Alaska Native health, education, food, energy and resource security, and economic opportunity are evaluated also.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F243X Extension to Natural Resource Economics**  \((s, a)\)  
3 Credits  
Offered Fall, Spring and Summer  
Microeconomic principles and their application to natural resource issues. Topics include supply, demand, marginality, optimality, elementary production economics, economic rent and comparative advantage. These principles applied to agency budget allocation decisions, multiple use, resource valuation, conservation, market failure and public outdoor recreation problems.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F244X Extension to Environmental Economics**  \((s, a)\)  
3 Credits  
Offered Fall, Spring and Summer  
Attributes: UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F247X Introduction to Environmental Policy**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Examine the significance of Alaska Native economies and their role in the modern Alaska economy. To include the challenges facing rural communities, and the role of social and cultural capital. Economic indicators which incorporate Alaska Native health, education, food, energy and resource security, and economic opportunity are evaluated also.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F248X Introduction to Environmental Law**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Examine the significance of Alaska Native economies and their role in the modern Alaska economy. To include the challenges facing rural communities, and the role of social and cultural capital. Economic indicators which incorporate Alaska Native health, education, food, energy and resource security, and economic opportunity are evaluated also.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F250X Microeconomics**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Price and market theory, income distribution, public policy, labor markets, market structure, and externalities.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F251X Macroeconomics**  \((s)\)  
3 Credits  
Offered Fall, Spring and Summer  
Analysis and theory of national income, money and banking, stabilization policy, and international trade and finance.  
**Attributes:** UAF GER Social Sciences Req  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F260X Statistics**  
3 Credits  
Offered As Demand Warrants  
Extension of topics discussed in ECON F227. Understanding the fundamental theory underlying regression methods and learning how to appropriately apply these techniques in the analysis of economic and business problems. Simple and multiple regression and correlation, analysis of variance, forecasting techniques, quality control, nonparametric methods and decision theory.  
**Prerequisites:** STAT F200X or ECON F227.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F321 Intermediate Microeconomics**  \((s)\)  
3 Credits  
Offered Fall and Spring  
Analysis of demand and supply under various market forms, cost and theory of production, factor pricing and theory of distribution and survey of welfare economics.  
**Prerequisites:** ECON F201X; ECON F202X; MATH F122X or equivalent.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F322 Managerial Economics**  
3 Credits  
Offered As Demand Warrants  
Interpretation of economic data and applications of economic theory in business firms. Bridging the gap between theory and practice through empirical studies, cases and decision problems. Emphasis upon decision-making using analysis of research data.  
**Prerequisites:** ECON F201X; ECON F202X; MATH F122X or equivalent.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F324 Intermediate Macroeconomics**  \((s)\)  
3 Credits  
Offered As Demand Warrants  
This is a one-semester undergraduate-level course in intermediate macroeconomics. We will study the concepts and measurement of income, aggregate demand and supply and their relation to the level of prices, employment and economic growth.  
**Prerequisites:** ECON F201X; ECON F202X; MATH F122X or equivalent.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F327 Intermediate Econometrics for Forecasting and Business**  
3 Credits  
Offered As Demand Warrants  
Extension of topics discussed in ECON F227. Understanding the fundamental theory underlying regression methods and learning how to appropriately apply these techniques in the analysis of economic and business problems. Simple and multiple regression and correlation, analysis of variance, forecasting techniques, quality control, nonparametric methods and decision theory.  
**Prerequisites:** STAT F200X or ECON F227.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F335 Intermediate Natural Resource Economics**  \((O, s, a)\)  
3 Credits  
Offered As Demand Warrants  
Extension of concepts developed in ECON F235X, using a higher level of economic analysis. Topics include welfare economics and economic efficiency concepts, benefit/cost analysis, resource allocation over time, resource taxation, common property problems, externalities, public goods, valuation of non-market resources, and land use planning issues.  
**Prerequisites:** COJO F131X or COJO F141X; ECON F201X; ECON F202X or ECON F235X; MATH F230X.  
**Lecture + Lab + Other:** 3 + 0 + 0

**ECON F350 Money and Banking**  \((s)\)  
3 Credits  
Offered As Demand Warrants  
The liquid wealth system in the United States, including the commercial banking system, the Federal Reserve System and nonbank financial institutions; the regulation of money and credit and its impact on macroeconomic policy objectives.  
**Prerequisites:** ECON F201X; ECON F202X.  
**Lecture + Lab + Other:** 3 + 0 + 0
ECON F351  Public Finance  (s)  
3 Credits  
Offered As Demand Warrants  
Economic justifications for government; federal, state and local government, taxation, spending and debt; their effects on allocation, distribution, stabilization and growth.  
Prerequisites: ECON F201X; ECON F202X; MATH F122X or equivalent.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F409  Industrial Organization and Public Policy  (W, s)  
3 Credits  
The relationship of market structure to the economic conduct and performance of firms and industries, the determinants, measurement and classification of market structure, public policy toward mergers, industrial and aggregate concentration.  
Prerequisites: ECON F201X; ECON F202X; WRTG F111X; WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X; MATH F230X; upper division standing.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F420  Labor Markets and Public Policy  (W, s)  
3 Credits  
Offered As Demand Warrants  
Application of labor market analysis and wage theory as they relate to public policy issues. Topics include determination of wages, taxation and employment, economic impact of unions, economics of discrimination, and issues relating to women's and minorities' changing roles in the labor market.  
Prerequisites: ECON F201X; ECON F202X; WRTG F111X; WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F434  Environmental Economics  (W, a)  
3 Credits  
Offered As Demand Warrants  
An extension of concepts introduced in ECON F235X, using a higher level of economic analysis. An analysis of the economic forces involved in environmental degradation, preservation and regulation. Topics include pollution, biodiversity, wilderness and climatic change.  
Prerequisites: ECON F201X and ECON F202X or ECON F235X; MATH F122X; WRTG F111X; WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F439  Energy Economics  (W, s, a)  
3 Credits  
Offered As Demand Warrants  
Market forces and institutions affecting the allocation of energy resources. Special attention to intertemporal allocative decisions and the role that public policy plays in influencing the rate at which energy resources are used over time.  
Prerequisites: ECON F201X and ECON F202X or ECON F235X; WRTG F111X, WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.  
Stacked with ECON F639.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F451  Public Expenditure Analysis  (W)  
3 Credits  
Offered Spring Odd-numbered Years  
Purposes and economic effects of governmental expenditures, budgeting techniques, and their effects on resource allocation.  
Prerequisites: ECON F201X; ECON F202X; WRTG F111X; WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X; MATH F230X.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F463  International Economics  (W, s, a)  
3 Credits  
Prerequisites: ECON F201X; ECON F202X; WRTG F111X; WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X; MATH F230X.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F601  Microeconomic Theory I  
3 Credits  
Offered As Demand Warrants  
Analysis of consumer and producer theory, price determination and welfare economics.  
Prerequisites: ECON F321; MATH F251X; graduate standing.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F602  Economic Modeling  
3 Credits  
Offered As Demand Warrants  
A hands on approach to applied microeconomics and resource modeling. Students extend their training in economic theory and econometrics to model real life problems in the areas of renewable and exhaustible resources, non-market valuation and environmental economics. Special emphasis will be given to the use of econometric analyses.  
Prerequisites: ECON F601; ECON F626; graduate standing.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F603  Macroeconomic Theory I  
3 Credits  
Offered As Demand Warrants  
Analysis of the underlying causes of unemployment, economic instability, inflation and economic growth.  
Prerequisites: ECON F321; ECON F324; MATH F251X; graduate standing.  
Lecture + Lab + Other: 3 + 0 + 0  
ECON F613  Resilience Internship  
2 Credits  
Offered As Demand Warrants  
Students of the Resilience and Adaptation Program participate in internships to broaden their interdisciplinary training, develop new research tools and build expertise outside their home disciplines. Internships are for eight to ten weeks of full time commitment and take place during the student’s first summer in the program. In autumn students meet to discuss their internship experiences and make public presentations.  
Prerequisites: ANTH F667, BIOL F667, ECON F667 or NRM F667; ANTH F668, BIOL F668, ECON F668 or NRM F668.  
Cross-listed with ANTH F617; BIOL F613; NRM F613.  
Lecture + Lab + Other: 2 + 0 + 0  
ECON F616  Economics Background for Resilience and Adaptation  (a)  
1 Credit  
Offered As Demand Warrants  
Provides the economics background that is necessary for understanding the role of economics in complex systems involving interactions among biological, economic, and social processes. Designed for incoming students of the Resilience and Adaptation Program (RAP), who have not received training in ecology.  
Prerequisites: Graduate student enrollment.  
Lecture + Lab + Other: 1 + 0 + 0
ECON F623  Mathematical Economics
3 Credits
Offered As Demand Warrants
Mathematical techniques including matrix algebra, differential and integral calculus. Particular attention is given to static and comparative statics analysis and dynamic models.
Prerequisites: MATH F251X; graduate standing.
Lecture + Lab + Other: 3 + 0 + 0

ECON F626  Econometrics
3 Credits
Offered As Demand Warrants
Introduction to econometric theory. Single equation and multiple equation system estimation, including inference and hypothesis testing and results of assumption violation.
Prerequisites: ECON F227; MATH F251X; STAT F401; graduate standing.
Lecture + Lab + Other: 3 + 0 + 0

ECON F627  Advanced Econometrics
3 Credits
Offered As Demand Warrants
Advanced Econometrics is the second graduate econometrics course in the Ph.D. in Resource Economic program. This course builds upon the theoretical and empirical tools developed in ECON F626. Large sample theory and the Maximum Likelihood estimation theory are covered. Limited dependent variable models widely used in applied microeconometric modeling are developed and extended. Univariate and multivariate time series modeling and forecasting is developed.
Prerequisites: ECON F626; graduate standing.
Lecture + Lab + Other: 3 + 0 + 0

ECON F635  Renewable Resource Economics (a)
3 Credits
Offered As Demand Warrants
The theory, methods of analysis and current literature of natural resource economics and policy for fisheries, forests and wildlife. Topics include externalities, property rights, public goods, benefit-cost analysis, amenity values and other non-market resource services, and environmental policy.
Prerequisites: ECON F321; ECON F335; MATH F251X; graduate standing.
Lecture + Lab + Other: 3 + 0 + 0

ECON F636  Nonrenewable Resource Economics (a)
3 Credits
Offered As Demand Warrants
Exploration of issues relating to the mineral and energy markets. The analysis of energy and mineral use over time, capital investment problems and world market dynamics are explored. Topics include futures markets, present value, energy value and entropy.
Prerequisites: ECON F321; ECON F335; MATH F251X; graduate standing.
Lecture + Lab + Other: 3 + 0 + 0

ECON F637  Evolution of Conservation Concepts and Policy
3 Credits
Offered As Demand Warrants
Resource policy issues development and implementation including forestry, mining, fisheries, oil, wildlife and other topics as demand warrants. Focus on policy issues involved in management of Alaska’s resources.
Prerequisites: Graduate standing.
Cross-listed with NRM F637.
Lecture + Lab + Other: 3 + 0 + 0

ECON F639  Energy Economics (a)
3 Credits
Offered As Demand Warrants
Market forces and institutions affecting the allocation of energy resources. Special attention to intertemporal allocative decisions and the role that public policy plays in influencing the rate at which energy resources are used over time.
Prerequisites: ECON F201X and ECON F202X or ECON F235X; graduate standing.
Stacked with ECON F439.
Lecture + Lab + Other: 3 + 0 + 0

ECON F647  Global to Local Sustainability
3 Credits
Offered As Demand Warrants
Explores the basic principles that govern resilience and change of ecological and social systems. Principles are applied across a range of scales from local communities to the globe. Working within and across each of these scales, students address the processes that influence ecological, cultural and economic sustainability, with an emphasis on northern examples.
Prerequisites: Graduate standing.
Cross-listed with ANTH F647; BIOL F647; NRM F647.
Lecture + Lab + Other: 3 + 0 + 0

ECON F649  Integrated Assessment and Adaptive Management
3 Credits
Offered As Demand Warrants
An interdisciplinary exploration of the theoretical and practical considerations of integrated assessment and adaptive management. Students survey concepts important in understanding societal and professional-level decision-making. Students work as individuals and as a team to undertake case studies with relevance to integrated assessment and adaptive management. Collectively, the class builds a portfolio of cases and conducts an integrated assessment.
Prerequisites: Graduate student standing in a natural science, social science or interdisciplinary program at UAF or another university.
Recommended: ANTH F647; BIOL F647; ECON F647; NRM F647; ANTH F667; BIOL F667; ECON F667; NRM F667.
Cross-listed with ANTH F649; BIOL F649; NRM F649.
Special Notes: In case of enrollment limit, priority will be given to graduate students in the Resilience and Adaptation Program in order for them to be able to meet their core requirements.
Lecture + Lab + Other: 3 + 0 + 0

ECON F667  Resilience Seminar I
1 Credit
Offered As Demand Warrants
Provides a forum for new students of the Resilience and Adaptation graduate program to explore issues of interdisciplinary research that are relevant to sustainability. A considerable portion of the seminar is student-directed, with students assuming leadership in planning seminar activities with the instructor.
Prerequisites: Enrolled in Resilience and Adaptation Graduate Program.
Recommended: ANTH F647; BIOL F647; ECON F647 or NRM F647 (taken concurrently).
Cross-listed with ANTH F667; BIOL F667; NRM F667.
Lecture + Lab + Other: 2 + 0 + 0
ECON F668  Resilience Seminar II
1 Credit
Offered As Demand Warrants
Provides a forum for new students of the Resilience and Adaptation
graduate program to explore issues of interdisciplinary research relevant
to sustainability. The seminar provides support to each student planning
his/her summer internship and preparing and presenting a thesis
research prospectus.
Prerequisites: ANTH F647, BIOL F647, ECON F647 or NRM F647;
ANTH F667, BIOL F667, ECON F667 or NRM F667.
Cross-listed with ANTH F668; BIOL F668; NRM F668.
Lecture + Lab + Other: 2 + 0 + 0

ECON F670  Seminar in Research Methodology
1 Credit
Offered As Demand Warrants
Philosophy of research and importance of the scientific method to
solution of research problems.
Prerequisites: Graduate standing.
Lecture + Lab + Other: 1 + 0 + 0

ECON F692  Seminar
1-12 Credits
Offered As Demand Warrants
Lecture + Lab + Other: 0 + 0 + 0

ECON F698  Non-thesis Research/Project
1-9 Credits
Offered As Demand Warrants
Lecture + Lab + Other: 0 + 0 + 0

ECON F699  Thesis
1-9 Credits
Offered As Demand Warrants
Lecture + Lab + Other: 0 + 0 + 0