ECONOMICS AND DECISION SCIENCES
Chair: Loogeok (Lydia) Gan

Faculty: Mohammad Ashraf, James R. Frederick¹, Zhixin (Richard) Kang, Bishwa S. Koirala², Edwin (Cliff) Mensah³, Xinyan Shi

¹Interim Associate Dean  ²Director of Economic and Business Research  ³AACSB Accreditation Coordinator

The Economics Track within the Bachelor of Business Administration prepares students for a variety of careers in the government or business sector and for job opportunities that abound in economic consulting and research. Corporate jobs concerned with practical applications of economic policy and microeconomic forecasting are also routinely available. The Economics track is available for traditional (face-to-face) and fully online modes of delivery.

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Requirements for a Bachelor of Science in Business Administration—

<table>
<thead>
<tr>
<th>Economic Track</th>
<th>Sem. Hrs.</th>
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<tbody>
<tr>
<td>Freshman Seminar</td>
<td>1</td>
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<tr>
<td>General Education, including: MAT 1070 and 2150 or 2210; ECN 2020, 2030</td>
<td>44</td>
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<tr>
<td>BSBA Common Body of Knowledge</td>
<td>45</td>
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<tr>
<td>BUS 1001-1006, DSC 2090, BLAW 2150; ACC 2270, 2280; DSC 3130, 3140; MGT 3030, 3060; MKT 3120, FIN 3100; ECN 3010 or ECN/FIN 3040; ITM 3010; MGT 4410, 4660; and ONE of the following six courses to satisfy the School’s international requirement: BLAW 3160, ECN 2410, ECN 4400, FIN 4210, MGT 3150, or MKT 3130*</td>
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<tr>
<td>Track—Economics</td>
<td>12</td>
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<tr>
<td>ECN 3010*, 3500, and two additional 3000- or 4000-level economics courses (ECN or ECNS)</td>
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<tr>
<td>*ECN 3010 cannot be taken as part of the BSBA Common Body of Knowledge</td>
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<tr>
<td>Business Electives (3000 or 4000 level)</td>
<td>6</td>
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<tr>
<td>General Electives</td>
<td>12</td>
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<td><strong>Total:</strong> 120</td>
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</table>

*A study-abroad program approved by the department chair and the dean/assistant dean may replace this requirement. ECN track students may not use ECN 4400 to fulfill this requirement.

NOTE: In addition to the University graduation requirements, all B.S. in Business Administration—Economics Track majors must attain an overall 2.00 QPA in the 12 semester hours listed above to fulfill the economics track.

Minor in Economics

Requirements for a Minor in Economics

| Sem. Hrs. |
|----------------|-----------|
| Required Courses: ECN 2020 and 2030 | 6 |
| Choose four courses from among the 3000- and 4000-level economics courses (ECN or ECNS) offered by the department* | 12 |
| **Total:** 18 | |

*FIN 3040 can be substituted for ECN 3040; there are other prerequisites, in addition to ECN 2020 and 2030, for ECN 3010, ECN 3040, and FIN 3040.
Minor in Quantitative Economics

Requirements for a Minor in Quantitative Economics

Required Courses: ECN 2020 and 3010 or ECN 2030 and 3050; ECN 3200 and 3600; MAT 2150 or 2210; DSC 3130 or MAT 2100

Total: 19

COURSES

DECISION SCIENCES (DSC)

DSC 1590. Technology-Enabled Decision Making (3 credits)
This course introduces pertinent elements of computer applications as they relate to making informed decisions. New and emerging learning technologies are introduced and employed to accentuate critical thinking and problem solving skills. Additionally, the course emphasizes effective communication and collaboration in a technology-rich learning environment. Excel spreadsheets are introduced and utilized extensively in this course. Other techniques taught include collection, analysis, interpretation, and presentation of data as well as the effective use of Internet search tools and electronic databases.

DSC 2090. Spreadsheet and Database Management (3 credits)
A comprehensive advanced-level course in spreadsheet analysis and database management. The focal point in this course will be on the use of spreadsheet analysis and database management to address contemporary business problems. PREREQ: DSC 1090.

DSC 3130. Business Statistics I (3 credits)
A study of descriptive statistics including functional and summation notation, describing data graphically and numerically, and probability distributions. PREREQ: C or better in MAT 1070 or a higher-level mathematics class.

DSC 3140. Business Statistics II (3 credits)
A study of statistical inference including probability theory, random variables and probability distributions, testing hypotheses, estimating unknown parameters, analysis of variance, and linear and multiple regression. PREREQ: A “C” or better in DSC 3130.

DSC 3650. Management Science (3 credits)
The mathematical concepts application to the solution of management problems. Topics include linear programming, decision theory, optimization, queuing theory, and transportation modeling. PREREQ: DSC 3140, MGT 3060.

DSC 4420. Supply Chain Management (MGT 4420) (3 credits)
Introduces students to new and emerging topics, tools, and techniques in operations and supply chain management. The course emphasizes coordination, integration, and decision making regarding the interaction of the firm with its suppliers and customers, where planning, design, and control of all aspects of supply chains including design and control of material and information systems, supplier development, supplier selection, customer relationship management and quality issues such as outsourcing in supply chain are discussed. PREREQ: ECN 2020 and 2030, DSC 3130, MAT 1070, ITM 3010.

DSC 4990. Directed Studies in Decision Sciences (1-3 credits)
Independent study in an area of decision sciences of particular interest to a student under the direction of one or more faculty members. Students must submit detailed proposals for a directed study, detailing the proposed plan of study, research involved, dates for deliverables, final product to be produced, and faculty who will be supervising. Proposals will be reviewed by a faculty committee to determine acceptance of the proposal. PREREQ: DSC 2090, DSC 3130.

DSCS 4XXX. Special Topics in Decision Sciences (3 credits)
The study of a particular topic of special importance, relevance, and currency in the broad field of decision sciences. The content of the special topics course varies with each offering. Course may be repeated as long as topic being studied is different. PREREQ: DSC 2090, 3130.
ECONOMICS (ECN)

ECN 1000. Economics of Social Issues (3 credits)
Economic thinking applied to persistent economic problems and issues in a market economy. Emphasis on implications for government policy rather than on the underlying theory. Topics include the nature of an economic system, demand and supply, monopolies, pollution and public goods, ethics and law, unemployment, inflation, the Federal Reserve System and money.

ECN 2020. Principles of Microeconomics (3 credits)
This course focuses on the individual decisions in the market economy. After an overview of how a market economy works, the course develops theories of consumer behavior, the behavior of firms in various degrees of competition, and workers’ decision to offer labor. Government regulation of markets is also examined.

ECN 2030. Principles of Macroeconomics (3 credits)
This course offers an overall picture of the operation of our economy. The course focuses on how the economic system determines the level of national income, the unemployment rate, and the rate of inflation. Fiscal, monetary, and supply-side policies are discussed.

ECN 2410. Asian Economies (3 credits)
This is an introductory level course focusing on the economic systems of Asian countries, which despite diverse history, culture, politics, and society have demonstrated one similarity: rapid economic growth. The course reviews patterns of economic growth among Asian countries, highlighting institutional differences within Asia and between Asian countries and the United States, and studying the global consequences of Asian economic expansion. Countries discussed will be selected from the Middle East, the Indian subcontinent, and Southeast and North Asia. China and Japan will be discussed in depth. Particular attention is paid to successes and failures of government policies in promoting economic growth in the region, and the role of culture in shaping such policies. Economic theories such as comparative advantage and growth models will be utilized to analyze the reasons for success of certain countries and the stagnation of others. The role of the market system as well as cultural and legal factors will be studied in addressing the similarities and differences among such economies.

ECN 3010. Managerial Economics (3 credits)
This course is a rigorous analysis of resource allocation, price determination in a market economy, consumer behavior (constrained utility maximization), theory of the firm (constrained profit maximization), and production and pricing behavior under various market structures. PREREQ: A “C” or better in MAT 2150 or 2210 and in ECN 2020.

ECN 3040. Money, Financial Markets, and Institutions (FIN 3040) (3 credits)
Study of money, financial institutions, and markets and their roles in the economy. Coverage includes organization and functions of financial intermediaries, structure of financial markets and financial instruments, application of time value of money to bond pricing and yield calculations, algebraic approach to the supply and demand for money and interest rate determination, term- and risk structures of interest rates, the Keynesian macroeconomic model, and the algebraic approach to analyzing the effects of money and credit on national incomes, prices, and interest rates. While this course is substantially the same as FIN 3040 and covers the same set of topics, it places more emphasis on policy-oriented macroeconomic analysis. PREREQ: A “C” or better in MAT 2150 or 2210 and in ECN 2030.

ECN 3050. Intermediate Macroeconomics (3 credits)
This course builds upon the concepts learned in Principles of Macroeconomics. It provides a deeper understanding of the functioning of the macroeconomy and the forces of globalization. Students will learn two major macroeconomic models: the neoclassical model and the Keynesian model. Topics will include national income and its determinants, economic fluctuation and economic growth, the possible impacts of monetary and fiscal policies, and how different factors of production behave in certain
economic situations. Furthermore, how changes in aggregate consumption and investment affect the economy will also be covered. PREREQ: A “C” or better in MAT 2150 or 2210 and in ECN 2030.

ECN 3070. Internet Economics (3 credits)
Applying basic principles of economics, this course surveys the various ways that economics is applied to the area of electronic commerce and how the e-commerce revolution affects the economy. The course covers relevant applications of electronic commerce to emerging economic concepts such as virtual products, network industries, online pricing and advertising, vertical integration/vertical restraint in the online market, Internet intellectual property rights, anti-trust issues in e-commerce, online financial markets, online banking, digital cash and electronic payments, regulatory issues of online markets, the public sector and the online marketplace, Internet and security. It provides balanced examinations of how basic economic principles continue to the electronic marketplace and of how features of certain products sold in this market place required rethinking some of those principles. PREREQ: ECN 2020.

ECN 3080. Environmental Economics (3 credits)
This course examines the implications of economic theory and how it relates to the environment and environmental activity. The continuing conflict between market forces and environmental integrity will be the centerpiece of discussion, and the course will explain how economic theory views the relationship between economic activity and the natural world. Special emphasis is given to developing and implementing tools to evaluate environmental policies. Other topics include cost-benefit analysis, measurement of the benefits of non-market goods and costs of regulations, and the evaluation of the impact of regulations in areas such as financial markets, workplace health and safety, consumer product safety, and other contexts. PREREQ: ECN 2020.

ECN 3090. Economics of Sports (3 credits)
This course centers around the application of microeconomic theory to the sports industry, both at the professional and amateur sports markets. The topics include market structure, labor relations, labor market discrimination, competitive balance, market value of sports talent, and payments to players. The involvement of the government in the sports business will also be discussed. PREREQ: ECN 2020.

ECN 3200. Mathematical Economics (3 credits)
This course combines two strongly related disciplines, economics and mathematics, and provides the foundations needed for students to excel in future coursework in these disciplines. Multivariable calculus and linear algebra will be taught and applied to the problems of modeling, constrained optimization, and economic dynamics. PREREQ: C or better in MAT 2150 or 2210.

ECN 3300. Public Finance (PSPA 3310) (3 credits)
A descriptive and analytical study of government revenues and government expenditures. Includes federal, state, and local levels of government. PREREQ: ECN 2020 or 2030.

ECN 3410. U. S. Economic History (HST 3410) (3 credits)
A study of the United States economy from colonization to the present. PREREQ: Permission of instructor.

ECN 3500. Survey of Ethics in Economics and Finance (FIN 3500) (3 credits)
A survey of the emerging field of Financial Ethics. This course will provide an overview of ethical theory and decision making, explore some of the possible sources of ethical conflicts in economics and finance, study the practice of ethical decision making in the fields of finance and economics, and employ case studies to practice methods for determining ethical decision making in financial management, investments, and financial institutions.

ECN 3600. Introduction to Econometrics (3 credits)
This is a basic course in econometrics. Students will acquire the necessary quantitative skills to conduct applied analyses. Topics will include hypothesis testing, multiple regression, regression diagnostics, time-series analysis and forecasting, and the interpretation of regression results. Students will be taught to use econometric software. PREREQ: C or better in MAT 2150 or 2210, and C or better in DSC 3130 or MAT 2100.
ECN 3740. Health Economics (3 credits)
This course will present an economic analysis of several aspects of the healthcare industry, including hospital services, physicians’ services, nurses’ services, the pharmaceutical industry, medical insurance, Medicare and Medicaid, HMOs and PPOs, medical tourism, and government healthcare policy. PREREQ: ECN 2020.

ECN 4020. Industrial Organization (3 credits)
Industrial organization is the study of industry and firm behavior. Using the basic tools of microeconomic theory and game theory, this course explores the relationships among firms in an industry or across industries by examining the nature of strategic interaction among firms. We will study theoretical models and empirical evidence for a wide variety of market phenomena. We will also introduce contract theory and its application in financial structure. PREREQ: C or better in ECN 2020 and MAT 2150 or 2210.

ECN 4060. Comparative Economic Systems (3 credits)
A comparative study of alternative economic systems, including communism, socialism, and capitalism. PREREQ: ECN 2020, ECN 2030.

ECN 4070. Labor Economics (3 credits)
Examines the nature of the labor markets and problems dealing with labor groups. Topics include history of the labor movement, union structure, labor law, collective bargaining. PREREQ: ECN 2020.

ECN 4080. Economic Development (3 credits)
Analysis of economic and social problems of underdeveloped regions. Theories and strategies of economic growth and development designed to accelerate solutions to these problems. PREREQ: ECN 2020, ECN 2030.

ECN 4110. Development of Economic Thought (3 credits)
A basic course in the development of economic theories and doctrines, from the ancient Greeks to the present day. PREREQ: ECN 2020, ECN 2030.

ECN 4400. International Trade (3 credits)
An introductory analysis of international trade relations, the nature of a country’s imports and exports, costs and benefits of trade protectionism, the role of trade in the domestic economy, balance of payments, and the determination of exchange rates. PREREQ: ECN 2020, ECN 2030.

ECN 4800. Economics Internship (3 credits)
This course entails a work experience in a business firm, a non-profit organization, or a government entity where the student, under academic and employer supervision, participates in the daily operations of the organization and conducts some economic analysis of the operations of the business entity (40 work hours per semester credit hour). Students must keep an extensive diary of work experiences and submit frequent reports to an academic supervisor, who is a UNCP faculty member in the Department of Economics, Finance, and Decision Sciences, who has been approved by the Chair of that department, and who will be responsible for assigning the grade in the course. Pass/Fail. PREREQ: Minimum of 90 semester hours, grades of C or better in ECN 2020 and in ECN 3010, cumulative GPA of 2.5 or better, a declared academic major in Business Administration or Accounting, a written proposal, and written consent of Department Chair.

ECN 4990. Directed Studies in Economics (1-3 credits)
Independent study in an area of economics of particular interest to a student under the direction of one or more faculty members. Students must submit detailed proposals for a directed study, detailing the proposed plan of study, research involved, dates for deliverables, final product to be produced and faculty who will be supervising. Proposals will be reviewed by a faculty committee to determine acceptance of the proposal. PREREQ: ECN 2020, ECN 2030, and permission of the Department.

ECNS 4xxx. Special Topics in Economics (3 credits)
The study of a particular topic of special importance, relevance, and currency in the field of economics. The content of the special topics course varies with each offering. Course may be repeated as long as topic being studied is different. PREREQ: ECN 2020, ECN 2030.