DEPARTMENT OF ECONOMICS

BACHELOR OF SCIENCE IN ECONOMICS

Program Description

Economics is the study of how society, businesses, organizations and individuals, produce, exchange, buy and sell goods and services. The B.Sc. Economics degree program hosted in the College of Management and Administration is designed to provide the students with a solid grasp of economic theory, philosophy, applied economics, research and statistical techniques that would help develop their minds to critical thinking on economic issues as well as policy formulation, and management. The program offers ideal preparation for employment in all areas of graduate work. Students completing the program are expected to be fully equipped with the requisite knowledge, skills and attitudes to both be able to create and make use of job opportunities in the private and public space, in business, finance, government and international affairs as well as other endeavors of life. We are keen to producing students who would meet the requirements for postgraduate studies in economics and related fields. The program has Akron advantage in that it culminates in a senior project where you will demonstrate your abilities and apply what you have learned, both analytically and quantitatively.

Program Objectives

- To produce economists with analytical skills who will work in the fields of economic research and policy development as well as the management of private and public institutions.
- To produce economists that would meet the requirements to pursue higher learning in the field of economics and related fields.

Student Learning Outcomes

- Demonstrate knowledge of the principles of economics and economic models as they apply to various business fields.
- Ability to apply principles and data collection and analyses techniques appropriately.
- Demonstrate competency in applying economics principles to manage various types of business entities.

Curriculum Requirements

Candidates enrolling for the Bachelor of Science (B.Sc.) degree program in Economics are to meet the following four year course requirements to be eligible for graduation.

- TU General Education Courses (18) 52 credits
- College specific Required Courses (7) 21 credits
- Elective Courses (at least 4) 12 credits
- Professional Courses (16) 51 credits
Total 136 credits

**Core Requirements:**
- MATH 101: College Algebra, Trigonometry and Geometry
- MATH 102: Finite Mathematics
- ENG 101 & 102: Communication Arts 1 & II
- ENG 103: Technical Writing III
- ENG 104: Phonetics and Public Speaking
- SSC 101: Introduction to Liberian Society
- HIST 101: Liberian History and Geography
- HIST 102: African and World History & Western Civilization
- PSY 101: Introduction to Psychology
- BIO 101: General Biology
- CHEM 101: Principles of Chemistry
- CSE 101 & 102: Computer Literacy 1 & 2
- LANG 101 & 102: Introduction to Foreign Language I & II
- PED 101 & 102: Physical Fitness I & II
- ACCT 201 & 202: Principles of Accounting I & II
- ECON 201 & 202: Principles of Economics I & II
- ECON 203: Quantitative Techniques to Business and Economics Analysis
- MGT 202: Principles of Management
- PADM 202: Introduction to Public Administration

**Concentration Requirements:**
- ECON 301 & 302: Intermediate Microeconomic Analysis I & II
- ECON 303 & 304: Intermediate Macroeconomic Analysis I & II
- ECON 305: Survey of the Liberian Economy
- ECON 313 & 314: Business and Economics Statistics I & II
- ECON 306: History of Economic Thought
- ECON 308: Research Methodology
- ECON 401 & 402: Advanced Microeconomic Analysis I & II
- ECON 403 & 404: Advanced Macroeconomic Analysis I & II
- ECON 407: Introduction to Econometrics
- ECON 408: Econometrics and Time Series
- ECON 430: Thesis Research
Electives

- ECON 315: Managerial Economics
- ECON 317: Industrial Organization & Policy
- BFN 301: Financial Management
- BFN 303: Investment Theory and Analysis
- ACCT 301 & 302: Intermediate Accounting I & II
- ACCT 303 & 304: Cost Accounting I & II
- PADM 307: Administrative Theory and Practice
- PADM 311: Government Budgetary Process
- ECON 318: Industrial Economics
- ECON 320: Public Sector Economics
- ECON 312: International Economic Analysis
- BUS 314: Operation Research
- BFN 302: Corporate Finance
- PADM 306: Administrative Law and Practice
- ECON 405 & 406: Development Economics I & II
- ECON 409: Economic Planning and Project Evaluation
- ECON 411 & 412: Monetary Economics I & II
- ECON 417: Taxation and Public Finance
- ECON 415 & 416: Agricultural Economics I & II
- BUS 411: Entrepreneurship and Small Business
- BFN 403: Management of Financial Institutions
- ECON 410: Labor and Resource Economics
- BFN 412: International Business Finance
- BFN 404: Advanced Corporate Finance
# Bachelor of Science in Economics

## First Year: General Education Courses

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### THIRD YEAR: ECONOMICS

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### FOURTH YEAR: ECONOMICS

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<td>ECON 418</td>
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<td>ECON 429</td>
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Course Descriptions

**ECON 201 - Principles of Economics I**

The course introduces students to the discipline of economics beginning with the definition, scope and methods of economic analysis. Concepts such as scarcity, choice, opportunity cost and the basic problem of resource allocation are reviewed along with the concepts of demand, supply, and equilibrium price. The study of the firm, market structure and types of business organization will be introduced. Prerequisite: Sophomore standing.

**ECON 202 - Principles of Economics II**

This course introduces the students to the study of national economy. Major topics include the nature and scope of macroeconomics, public vs. private sectors, the circular flow of income and expenditure, national income accounting and the uses of national income and output statistics. The concepts of unemployment, inflation, taxation, macroeconomic policy, money, banking, international trade and public finance will all be explored. Prerequisite: Sophomore standing.

**ECON 203 - Quantitative Techniques for Business and Economics**

This course introduces the students to the use and appreciation of mathematical techniques for business and economic analysis. Topics include overview of the nature and scope of mathematics in business and economics analysis, mathematical symbols, limits, continuity, techniques and functions of several variables; derivative and the derivation of marginal concepts, growth rates and elasticity. The course also treats maximization, minimization and constrained optimization problems. Simple techniques of integration and its application to business and economics will be discussed alongside matrix algebra. Prerequisite: Math 101 & 102.

**ECON 301 - Intermediate Microeconomics Analysis I**

The course focuses on price and allocation theory with emphasis on the techniques and methods of analysis. Principles of optimization, the theory of consumer behavior, and the firm and factor market are analyzed. Prerequisite: ECON 201 & ECON 203.

**ECON 302 - Intermediate Microeconomics Analysis II**

In continuation of ECON 301, the course starts with production and cost theory and continues with the analysis of market structure and price in terms of equilibrium of the business firm and consumer demand in markets of varying degrees of competition. Programming and activity analysis, welfare economics and general equilibrium analysis are also explored. Prerequisite: ECON 301.

**ECON 303 - Intermediate Macroeconomics Analysis I**

This course deals with the concepts of economic model, national income and basic model of income determination with extension from simple closed economy to four sector economy model. The theories of consumption such as absolute income hypothesis, relative income
hypothesis, permanent income hypothesis and the life cycle income hypothesis; theories of investment and the concepts of multiplier and accelerator will be studied alongside the labor market, Money and prices. Prerequisite: ECON 202.

**ECON 304 - Intermediate macroeconomics Analysis II**  
3 credits

The course explores deeper understanding of the money and product markets using the IS-LM framework. It also discusses fiscal and monetary policy frameworks and extends to the Keynesian vs. monetarists views on unemployment and inflation. The foreign sector and the international monetary system will be highlighted. Prerequisite: ECON 303.

**ECON 306 - Survey of the Liberian economy**  
3 credits

The course is an empirical socio-economic analysis of the features and problems of the Liberian economy, covering such aspects as population, national account, internal trade, external trade and payments, public finance, banking, prices, agriculture, mining, industry, transport and communication. A study of the evolution, formulation and implementation of development plans of Liberia, regional cooperation, a general comparison of the features and problems of Liberia with those of other West African countries are explored. Prerequisite: Junior standing.

**ECON 307 - Mathematics for Economics**  
3 credits

The course deepens the students understanding and appreciation of mathematical techniques in economic analysis. Topics include comparative statics and dynamics, utility functions, price discrimination, and indifference curves application. It continues with constrained optimization, utility maximizations and minimization, differential, integral and optimization techniques as well as matrices with their respective applications in economics. Prerequisite: ECON 203.

**ECON 308 - Research Methodology**  
3 credits

This course introduces the students to the importance and process of academic research. Major topics to be covered include the nature and importance of research, application of the principles of science to social phenomena, the problems of research in West Africa, and the research process as well as essential parts of a research paper. Prerequisite: Junior standing.

**ECON 312 - International Economics Analysis**  
3 credits

This course provides an analytical framework for the understanding of the reasons for international trade in products and services. Students will learn to identify the determinants and patterns of international trade, and the effects on exchange rates and international capital flows in a free global market economy. The course also covers the role of international institutions in the development of international trade, financial markets, and economic growth. Students will be introduced to policies that distort international trade and prevent the development of comparative advantage, specialization and economic development. Special emphasis will be made on Liberia’s performance in international trade. Prerequisite: Junior standing.
**ECON 313 - Business and Economics Statistics I**  
3 credits

This course introduces students to statistical techniques employed in business and economic research. Topics to be covered include the definition, types and uses of statistics. The distinctions between descriptive and analytical statistics are highlighted. The process of collecting statistical data for business and economic research and analysis; census, population and sample, pilot surveys, questionnaires, and secondary sources of data. It continues with frequency distribution and diagrammatic representation of statistical data, measures of central tendency and measures of dispersion, regression and correlation and index numbers. Prerequisite: ECON 203.

**ECON 314 - Business and Economics Statistics II**  
3 credits

The course is a continuation of ECON 313. It will cover the following topics: The use of probability theory in business and economics research, construction of statistical models for business and economic research, especially the use of statistical tools and techniques such as sample designs and sampling distributions, point and interval estimation, confidence interval, hypothesis testing, chi-square tests of independence, analysis of variance, and the use of extrapolating methods such as moving average and exponential smoothing (time series). Prerequisite: ECON 313.

**ECON 315 - Managerial Economics**  
3 credits

This course applies microeconomic analysis to specific business decisions. Emphasis is on managerial decision-making upon the basis of comparisons of worth of alternative courses of action with respect to their cost; tools for decision-making; elements of financial accounting; capital budgeting; economics of production; inventory management; application of classical optimization techniques of profit maximization; linear programming and project evaluation. Prerequisite: ECON 201.

**ECON 317 - Industrial Economics I**  
3 credits

The course highlights what industrial economics is all about. The nature of the firm, ownership and control problem, theories of the firm- marginalist, behavioral and managerial; perfect competition, monopoly, oligopoly, monopolistic competition, company finance; investment theory, research and development; advertising; performance. Prerequisite: Junior standing.

**ECON 318 - Industrial Economics II**  
3 credits

The course explores the dimensions and determinant of market structure; concentration, merger and acquisition; integration, economies of scale; condition of entry; market power warfare, pricing and business practices. Others are public policy and regulation, industrial development structure and policy in Liberia -a sample of industry study. Prerequisite: ECON 317.
ECON 401 - Advanced Economics Analysis 3 credits

The course exposes the students to advance theories and mathematical techniques in economic analysis. Topics indifference curves, constrained utility maximizations; applications of consumer theory – work and leisure, etc. costs and production functions; optimization in theory of the firm; duopoly, oligopoly and bilateral monopoly; linear programming analysis of the firm; elements of input-output analysis, general equilibrium theory of production; comparative cost; transformation and contract curves gains from exchange; social and private costs and benefits; theory of distribution of wages, rent, profits and interest; matrix applications in the IS-LM framework, welfare function and Pereto optimum. Prerequisite: ECON 301& 307.

ECON 405 - Development Economics 3 credits
Prerequisite: senior standing.

ECON 404 - Development Economics II 3 credits

The course explores economic growth theories such as Horold-Domar, Solow and the neo-classical growth models etc. Prerequisite: ECON 404.

ECON 406 - History of Economic Thoughts 3 credits

This course is a study of economic thoughts from earliest time to present; capitalist and socialist systems from the point of view of various major writers, concepts and periods. Prerequisite: Junior standing.

ECON 407 - Introduction to Econometrics 3 credits

This course is an introduction to quantitative analysis of economic behavior. The ordinary least-square technique and the assumptions underlying it are developed. Methods designed to detect and correct for the violations of these assumptions are examined. Special emphasis is given to the practical application of the procedures discussed through the use of computer exercises. Prerequisite: ECON 203 & 313.

ECON 408 - Econometrics and Time series 3 credits

An introduction to the analytical and quantitative methods used in economics. Alternative forecasting methodologies for economic time series will be analyzed and discussed. The foci of the course will be: (1) the development of time-series (ARIMA) models and their application to forecasting, (2) the use of standard econometric models for forecasting, and (3) evaluation and comparison of these methods and the conditions under which each is the appropriate methodology. Prerequisite: ECON 407.

ECON 409 - Economic Planning and Project Evaluation 3 credits

The course is designed to explore the process of economic planning and project evaluation in both theoretical and empirical terms. Planning techniques at both macro and micro levels are covered and thoroughly explained. Basic topics covered are the origin of and rational for planning, social accounting utilization in planning, planning and integration,
planning and budgeting implementation and evaluation. Some case studies are also highlighted. Senior standing

**ECON 410 - Labor and Resource Economics**  
3 credits

The course focuses on the nature of labor force in developing economies. Possible topics include labor force, definition and concepts determinations of sizes and composition of labor force, concepts of unemployment, industrial and occupational distribution of labor force. Informal and the modern sector, labor market theories, economics of wage determination, features of the Liberian labor market, and manpower development. The course also looks at resources and their development. Prerequisite: Senior standing.

**ECON 411 - Monetary Economics**  
3 credits

The course defines monetary policy, its objectives and techniques at the disposal of government for its implementation. Conflicts, trade-offs and monetary coordination, the IS-LM framework and the effectiveness of monetary policy in economic stabilization; international adjustment and liquidity, and monetary policy in Liberia are highlighted. Prerequisite: ECON 304.

**ECON 415 - Agricultural Economics**  
3 credits

This course uses the basic concept of economic theory with respect to agriculture on both the demand and supply sides agricultural resources in the Liberian economy and their characteristics. Resource allocation, efficiency and policy consideration are highlighted. Prerequisite: senior standing.

**ECON 418 - Public Finance**  
3 credits

This course focuses on government revenue and expenditure. Topics include principles of taxation, incidence of taxation, budget and government accounting, government debt management, and government revenue and expenditure of developing economies. Prerequisite: Junior standing.

**ECON 429 - Internship in Economics**  
3 credits

**ECON 430 - Thesis Research**  
6 credits

Under the close supervision of a professor, each student is expected to conduct an independent research on any topic of his/her choice in partial fulfillment of the requirements for the award of the B.Sc. in Economics. Prerequisite: ECON 308 & 314.

**EED 301 - Entrepreneurship Education I**  
3 credits

The course seeks to provide the students with the knowledge, skills and attitudes needed to become successful entrepreneurs; promote positive attitudes among the undergraduate students at the University towards entrepreneurship and business, and foster an enterprising spirit and self-confidence among them. It will also help the students to develop an entrepreneurial culture and skills that are necessary for building an
entrepreneurial foundation for the nation. A combination of these will serve as a catalyst for sustainable private sector growth in Liberia, play a major role in the fight against the hurdles of youth unemployment and poverty, and also promote personal development. The course is taught on a modular basis from module one through three covering topics like understanding entrepreneurship and the concept of work and business, becoming an entrepreneur, and scanning the environment for business opportunities. Prerequisite: Junior standing.

**EED 302 - Entrepreneurship Education II 3 credits**

The course continues from EED 301, and seeks to enhance the skills of the students on practical entrepreneurial activities borrowing from the knowledge gained from EED 301. There are two additional modules to be covered with topics such as business research and developing a business plan, as well as starting and operating a successful business. Prerequisite: EED 301.