

UNIVERSITY OF NIGERIA, NSUKKA

FACULTY OF AGRICULTURE

DEPARTMENT OF AGRICULTURAL ECONOMICS

M.Sc. AND Ph.D DEGREE PROGRAMMES

UNIVERSITY OF NIGERIA, NSUKKA**FACULTY OF AGRICULTURE****DEPARTMENT OF AGRICULTURAL ECONOMICS****Postgraduate Degree Programme (M.Sc. & PhD)****Philosophy:**

Agricultural Economics is a vital field of learning that continues to gain increasing recognition in both the public and private sectors of the Nigerian society. As a discipline, it essentially concerns the application of economic principles to the solution of agricultural production, marketing and consumption problems. It deals with the management and allocation of scarce productive resources to different agricultural enterprises and uses. Agricultural economics, therefore, uses social science methodology to analyse agricultural problems. The philosophy of the Master of Science Degree Programme in Agricultural Economics is to develop high level manpower to pursue careers in academics and research.

Objectives:

The primary objective of the programme is to equip students with theoretical and practical tools required to apply themselves usefully to the nation's agricultural sector and the general economy. Consequently, the students are exposed to research methodology, applied theory, applied quantitative techniques, traditional agricultural economics areas like farm management, production economics, agricultural finance, marketing, rural development and cooperatives.

Scope:

Courses are offered to students pursuing their Master of Science (M.Sc.) and Doctor of Philosophy (PhD) degree. The students are exposed to both the theoretical concepts and field/research studies in general agriculture. Students should be able to apply their knowledge of theories to agricultural production decisions.

Entry Requirements:

The following are eligible for admission:

For M.Sc.:

1. Graduates of Agriculture (B. Agric.) or related areas with a minimum of second class lower degree.
2. Graduates of Agriculture (B. Agric.) or related areas with third class honours degree, who obtained a minimum of credit in the Postgraduate Diploma programme in Agricultural Economics of this University or other recognized university.
3. Holders of Higher National Diploma (HND) in Agriculture who obtained a minimum of credit in the Postgraduate Diploma Programme in Agricultural Economics of this University or other recognized University.
4. Graduates of other disciplines who obtain a minimum of credit in the Postgraduate Diploma Programme in Agricultural Economics of this University or other recognized University.
5. Candidates are also expected to satisfy the university matriculation requirements.

For PhD:

- (1) Master of Science (M.Sc.) holders in Agricultural Economics who score a GPA of 3.50 (A = 5.00) and above.

MODE OF STUDY:**M.Sc.**

Course work and dissertation, where research and course work shall be equally emphasised.

DURATION

MSc:	(Full-time)	-	Four (4) semesters (minimum) Six (6) semesters (maximum)
	(Part-time)	-	4 Semesters (minimum) Six (6) semesters (maximum)

REQUIREMENTS FOR GRADUATION

The programme consists of course work and seminars or special topics. To be awarded the Master of Science Degree in Agricultural Economics, a candidate must have fulfilled the following conditions:

- (a) Passed a minimum of 52 credit units as follows:

<u>Course</u>	<u>Units</u>
Core courses	30
Electives	12
Thesis/Dissertation	10
Seminar	2
Total	54

JOB OPPORTUNITIES

Employment prospects of agricultural economics graduates are vast and bright; covering almost the entire sectors of the country's economy. Our graduates have been and are still being employed as Research Officers, Farm Managers, Planning Officers, Monitoring and Evaluation Officers in both the private and public sectors of the economy. Some have gone into full-fledge agricultural consultancy with encouraging results. In the Finance sub-sector, agricultural economics graduates are employed as Credit Officers, Agricultural Finance experts and Project Analyses in Commercial, Merchant and Development Banks. Many agribusiness enterprises are also seeking the expertise of agricultural economics graduates in the areas of Sales promotion, Product marketing, Farm Accounting and Project Formulation, Appraisal and Execution. Many Agricultural Economics graduates have branched out as Accountants and Financial Analysts and Managers. Thus, the opportunities for employment are very bright and will become even brighter as Nigeria develops economically. Also, many post graduates are self employed.

Stress Areas

Applied Economic Theory	0
Quantitative Techniques	1
Farm Management & Production Economics	2
Agricultural Marketing & Agribusiness	3
Agricultural Cooperatives	4
Agricultural Finance & Project Analysis	5
Resource and Environmental Economics	6
Research in Agricultural Economics	7
Seminar	8
Dissertation/Thesis	9

AREAS OF SPECIALIZATION

1. Farm Management and Production Economics
2. Agricultural Marketing and Agribusiness
3. Agricultural Finance and Project Analysis
4. Agricultural Cooperatives
5. Resource and Environmental Economics

LIST OF APPROVED POST GRADUATE SUPERVISORS

Prof C J Arene
 Prof N J Nweze
 Prof N Okoye
 Prof E C Eboh
 Prof A I Achike
 Dr A A Enete
 Dr B C Okpukpara
 Dr N A Chukwuone
 Dr N A Onyekuru
 Dr A B C Ezibe
 Dr P I Oyata

DISTRIBUTION OF COURSES BY SEMESTER**A) Farm Management and Production Economics Option****First Semester Courses**

Course No.	Title	Units
First Semester		

AEC 601	Advanced Agricultural Economics Theory (Micro.)	3	
PGC 601	Introduction to Quantitative Research Techniques	3	
AEC 613	Econometrics	3	
AEC 621	Advanced Production Economics	3	
AEC 615	Computer Applications in Agriculture	3	
AEC 622	Methodology of Farming System Research	3	
AEC 681	Seminar	2	
Electives			
AEC 651	Advanced Agricultural Finance	3	} 6
AEC 631	Advanced Agricultural Marketing	3	
AEC 653	Advanced Farm Accounting	3	
		Sub-Total	26
Second Semester			
AEC 602	Agricultural Development, Planning and Policy	3	
AEC 604	Advanced Agricultural Economics Theory (Macro).	3	
AEC 624	Advanced Farm Management	3	
AEC 654	Agricultural Project Analysis	3	
AEC 690	Dissertation	10	
Electives			
AEC 662	Environmental Economics	3	} 6
AEC 642	Cooperative Business Management	3	
AEC 634	International Agricultural Trade and Policy	3	
		Sub-Total	28
		Grand Total	54

B) Agricultural Marketing and Agribusiness

Courses No.	Title	Units	
First Semester			
AEC 601	Advanced Agricultural Economics Theory (Micro.)	3	
PGC 601	Introduction to Quantitative Research Techniques	3	
AEC 613	Econometrics	3	
AEC 615	Computer Applications in Agriculture for Social Sciences	3	
AEC 631	Advanced Agricultural Marketing	3	
AEC 651	Advanced Agricultural Finance	3	
AEC 681	Seminar	2	
Electives			
AEC 641	Advanced Agricultural Cooperatives	3	} 6
AEC 621	Advanced Production Economics	3	
AEC 663	Natural Resources	3	
		Sub-Total	26
Second Semester			

AEC	602	Agricultural Development, Planning and Policy	3	
PGC	601	Advanced Agricultural Economics Theory (Macro).	3	
AEC	632	Marketing Management for Agribusiness Firms	3	
AEC	633	International Agricultural Trade and Policy	3	
AEC	690	Dissertation	10	

Electives

AEC	642	Cooperative Business Management	3	} 6
AEC	624	Advanced Farm Management	3	
AEC	662	Environmental Economics	3	

Sub-Total **28**
Grand Total **54**

C) Agricultural Finance and Project Analysis

Courses No.	Title	Units
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First Semester

AEC	601	Advanced Agricultural Economics Theory (Micro.)	3	
PGC	601	Introduction to Quantitative Research Techniques	3	
AEC	613	Econometrics	3	
AEC	615	Computer Applications in Agriculture for Social Sciences	3	

AEC	651	Advanced Agricultural Finance	3	
AEC	653	Agro-industrial Project Analysis	3	
AEC	681	Seminar	2	

Electives

AEC	621	Advanced Production Economics	3	} 6
AEC	641	Advanced Agricultural Cooperatives	3	
AEC	631	Advanced Agricultural Marketing	3	

Sub-Total **26**

Second Semester

AEC	602	Agricultural Development, Planning and Policy	3	
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AEC	604	Advanced Agricultural Economics Theory (Macro).	3	
AEC	652	Advanced Farm Accounting	3	
AEC	654	Agricultural Project Analysis	3	
AEC	690	Dissertation	10	

Electives

AEC	642	Cooperative Business Management	3	} 6
AEC	624	Advanced Farm Management	3	
AEC	634	International Agricultural Trade and Policy	3	

Sub-total **25**
Grand Total **54**

D) Agricultural Cooperatives

Course No.	Title	Units
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First Semester

AEC 601	Advanced Agricultural Economics Theory (Micro.)	3	
PGC 601	Introduction to Quantitative Research Techniques	3	
AEC 613	Econometrics	3	
AEC 615	Computer Applications in Agriculture for Social Sciences	3	
AEC 641	Advanced Agricultural Cooperatives	3	
AEC 651	Advanced Agricultural Finance	3	
AEC 681	Seminar	2	
Electives			
AEC 663	Natural Resources	3	} 6
AEC 631	Advanced Agricultural Marketing	3	
AEC 621	Advanced Production Economics	3	
		Sub-Total	26
Second Semester			
AEC 602	Agricultural Development, Planning and Policy	3	
AEC 604	Advanced Agricultural Economics Theory (Macro).	3	
AEC 642	Cooperative Business Management	3	
AEC 652	Advanced Farm Accounting	3	
AEC 690	Dissertation		
Electives			
AEC 662	Environmental Economics	3	} 6
AEC 634	International Agricultural Trade and Policy	3	
AEC 624	Advanced Farm Management	3	
		Sub- Total	28
		Grand Total	54

E) Resource and Environmental Economics

Courses No.	Title	Units	
First Semester			
AEC 601	Advanced Agricultural Economics Theory (Micro.)	3	
PGC 601	Introduction to Quantitative Research Techniques	3	
AEC 613	Econometrics	3	
AEC 615	Computer Applications in Agriculture for Social Sciences	3	
AEC 661	Land Resource Economics	3	
AEC 663	Natural Resources	3	
AEC 681	Seminar	2	
Electives			
AEC 631	Advanced Agricultural Marketing	3	} 6
AEC 621	Advanced Production Economics	3	
AEC 651	Advanced Agricultural Finance	3	
		Sub-Total	26
Second Semester			

AEC 602	Agricultural Development, Planning and Policy	3	
AEC 604	Advanced Agricultural Economics Theory (Macro).	3	
AEC 653	Agro-industrial Project Analysis	3	
AEC 662	Environmental Economics	3	
AEC 690	Dissertation	10	

Electives

AEC 624	Advanced Farm Management	3	} 6
AEC 642	Cooperative Business Management	3	
AEC 634	International Agricultural Trade and Policy	3	

Sub-Total **28**

Grand Total **54**

COURSES FOR PhD CANDIDATES (OTHER POSTGRADUATE STUDENTS BY PERMISSION OF DEPARTMENTAL POSTGRADUATE COMMITTEE)

Common Courses

First Semester

AEC 701	Advanced Microeconomic Theory	3	
AEC 705	Agricultural Policy Analysis	3	
AEC 703	Advanced Macroeconomic Theory	3	
AEC 771	Research Methodology	3	
AEC 711	Advanced Quantitative Techniques in Agricultural Economics		
PGC 701	Synopses and Grant Writing	3	
AEC 781	Seminar 1	1	} To be given any time the student is ready
AEC 783	Seminar 2	1	
Sub-Total		20	

Second Semester

Farm Management and Production Economics Option

AEC 716	Advanced Production Economics	3
AEC 712	Applied Econometrics	3
AEC 714	Operations Research Techniques	3
AEC 790	Thesis	16
Sub-Total		25
Grand Total		42

Second Semester

Agricultural Marketing and Agribusiness Option

AEC 731	Consumer Behaviour	2
AEC 732	Agribusiness Risk Management	3
AEC 733	Human Relations Mgt. and Control	3
AEC 790	Thesis	16
		25
Grand Total		42

Second Semester

Agricultural Finance and Project Analysis

Course No.	Title	Units
AEC 756	Advanced Agricultural Finance	3
AEC 754	Advanced Agricultural Project Analysis	3
AEC 752	Cost-Benefit Analysis	3
AEC 790	Thesis	16
Sub-Total		25
Grand Total		42

Second Semester

Agricultural Cooperatives

AEC 744	Advanced Agricultural Cooperatives	3
AEC 742	Cooperative Business Management	3
AEC 756	Advanced Agricultural Finance	3
AEC 790	Thesis	16
		42

Second Semester

Resource and Environmental Economics

AEC 762	Advanced Land Economics	3
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AEC 763	Advanced Environmental and Natural Resource Economics.	3
AEC 756	Advanced Cost-Benefit Analysis	3
AEC 790	Thesis	16
	Sub-Total	25
	Grand Total	42

COURSE DESCRIPTION

AEC 601 – Advanced Agricultural Economics Theory (Micro)

Microeconomic concepts applied to agriculture, e.g. Theory of consumer behaviour, theory of the agricultural production markets structures, maximization and minimization, matrices.

(3 units)

AEC 602 – Agricultural Development, Policy and Planning

Role of agriculture in economic development; cultural and economic barriers to development; theories and models of economic development and policy; price support; taxes; case studies.

(3 units)

AEC 603 – Advanced Agricultural Economics Theory (Macro)

Macroeconomic concepts relevant to agriculture e.g. the multiplier, growth models, inflation and national income accounts, employments and labour productivity; material resources prices and the agricultural sector, sectoral allocation of resources; international economy; inflation and deflation; effectiveness of monetary and fiscal policies. Case studies.

(3 units)

AEC 611 – Introduction to Quantitative Research Techniques Statistical and Mathematical methods for agricultural research and economic analysis e.g. linear regression and correlation, experimental designs, non-productive statistics, hypothesis testing; differential calculus, linear algebra, input-output analysis, constrained and unconstrained optimization, linear programming, Case studies.

(3 units)

AEC 613 – Econometrics

Application of economic methods to agricultural economic analysis, including: methods of ordinary least squares, generalized least squares, simultaneous equation systems etc; matrix algebra, multiple regression and correlation.

(3 units)

AEC 615 – Computer Applications in Agriculture for Social Sciences

– Introduction to various programmes in computer, the use of computer to solve farm problems, statistical analysis with the computer, farm budget, linear programming.etc.

(3 units)

AEC 621 – Advanced Production Economics

Estimation and analysis of production and cost functions. Firms' decision making under uncertainty; Bernoulli and Bayesian decision theory and application to agriculture. Further application of costs and production function, linear programming to firm planning, case studies.

(3 units)

AEC 622 – Methodology for Farming Systems Research

Meaning and evaluation of farming systems. Cultural and environmental determinants. Stages in farming systems research and problems; Methodology of farming systems research, Relevance of farming systems programme in setting research priorities, Case studies.

(3 units)

AEC 624 – Advanced Farm Management

Principles and concepts of farm management, enterprise combination, and budgeting. Analysis of risks and uncertainties in agriculture, management tools for planning; Breakeven analysis; Management of farm resources including personnel.

(3 units)

AEC 631 – Advanced Agricultural Marketing

The systems approach to the study of agricultural markets, marketing problems and policies of developing countries; Choice of markets; The futures market and its relevance to farmers; Marketing risks and their management; Case studies.

(3 units)

AEC 632 – Marketing Management for Agribusiness Firms

A study of marketing decision making in agribusiness. Analysis planning, control and evaluation of marketing opportunities; The marketing mix and demand creation; Marketing in the internet; Consumer and industrial markets; The SWOT analysis; Market research; Case studies.

(3 units)

AEC 633 – International Agricultural Trade and Policy

International Trade Theory; Tariff barriers to trade; Exchange rates; Economic integration, Balance of international payments as they affect agriculture; ECOWAS; NEPAD; Case studies.

(3 units)

AEC 634 – Agricultural Price Analysis

Quantitative analysis of demand and supply of agricultural products; impact of elasticities, price flexibilities, marketing margins, and price discrimination on agricultural commodities; Government intervention in pricing farm products, Spatial price relationships; Price indices; Case studies.

(3 units)

AEC 635 – Marketing Research for Agribusiness Management

Role of research in agribusiness marketing decision making. Choice and interpretation of techniques for solving agribusiness marketing problems; Questionnaire design; Research design; Secondary data; Attitude measurement; Case study.

(3 units)

AEC 632 – Marketing Management for Agribusiness Firms (Non-majors)

Concepts, principles and functions of agribusiness management. Marketing in agribusiness. Sales promotion; Case studies.

(3 units)

AEC 641 – Advanced Agricultural Cooperatives

Evaluation of Nigerian Cooperatives. Case studies

(3 units)

AEC 642 – Cooperative Business Management

Elements of financial management in-depth study of the economic and social functions of cooperation. Functions and techniques of cooperative management, credit building, and producer cooperatives.

(3 units)

AEC 651 – Advanced Agricultural Finance

Formal and informal sources of agricultural finance; in-depth evaluation of Nigerian credit institutions, costs of capital, loan repayments.

(3 units)

AEC 653 – Agro-industrial Project Analysis

Economic factors affecting the demand and supply of agro-industrial products. Government policies in agribusiness promotion, incentives, prices, etc. Problems and prospects of agro-industrial projects in development.

(3 units)

AEC 652 – Advanced Farm Accounting

Significance of farm records, types of farm records, banking and credit procedures, balance sheet, income statement, cash flow statement, accounting principles and methods.

(3 units)

AEC 654 – Agricultural Project Analysis

Techno-economic features of agricultural projects design, scale, taxation, choice of technology and timing. Uncertainty risk and sensitivity analysis. Network analysis, investment criteria.

(3 units)

AEC 661 – Land Economics

Review of land as a factor of production. Property rights as related to land tenure, mortgages and assessment. Location theory, land utilization.

(3 units)

AEC 663 – Natural Resources

Concepts, meaning and types of natural resources. Future consequences of present exploitation and conservation of natural resources for agricultural production, external economies and diseconomies.

(3 units)

AEC 662 – Environmental Economics and Policy Affecting Agriculture and Natural Resources

The types of environmental degradation. Types of economic and social costs of environmental pollution in agriculture, mining, oil exploration, refuse disposal etc. Methods of environmental impact assessment and control. Pollution control legislation; incentives and enforcements.

(3 units)

AEC 690 – Dissertation

This is designed to train students on the application of theoretical concepts, statistical and econometric techniques to formulation and analysis of agricultural research problems. These will include: preparation of proposals, sample surveys, sampling techniques, data collection methods, advanced analytical interpretation of results and reporting.

(10 units)

AEC 701 – Advanced Microeconomic Theory (Ph.D Level)

Role of theory and mathematics in microeconomic theory; demand theories. Ordinary and compensated demand functions; elasticities of demand; substitution and income effects; constrained output maximization and cost minimization; equilibria analysis. Pareto optimality; optimization over time.

(3 units)

AEC 702 – Agricultural Policies Analysis

Advanced analysis of the role of agriculture in the general economy and of economic, political and social forces which affect the development of agricultural policy. effects of government policies on output, prices and income. review of past and current government agricultural policies. Case studies.

(3 units)

AEC 711 – Advanced Mathematical Economics

Mathematical economics vs econometrics; economic models; linear models and matrix algebra; differentiation of functions, and variables; partial differentiation; application to comparative static analysis; market models; national income model; input-output model; constrained and unconstrained optimization; exponential and logarithmic functions; dynamic analysis; game theory.

(3 units)

AEC 712 – Applied Econometrics

Uses of summary statistics in linear regression. Bias in estimates, non-linear estimates distributed lags. Applications to agriculture. Pooling of cross-section and time-series data, forecasting with time series models.

(3 units)

AEC 714 – Operations Research Techniques

Selected economic decision – making models as they apply to rural economy, e.g., linear programming, games theory and Markov chain process.

(3 units)

AEC 731 – Consumer Behaviour

The study of the shopping, purchasing and consumption behaviours of persons and groups as they interact with marketing efforts and other sources of information, with particular reference to agribusinesses.

(3 units)

AEC 732 – Agribusiness Risk Management

Concept and principles of risk management. The typology of risks. The operation and influence of financial, legal, labour, laws, trade union laws and technological limitations. Strategies to control and manage risks.

(3 units)

AEC 733 – Human Relations Management, and Control

Concept and principles of human resource development, staffing and development procedures, job evaluation, wage determination and incentives. Groups and group dynamics. Promotion of productivity in agribusiness enterprises, role of social security and work incentives.

(3 units)

AEC 755 – Cost-Benefit Analysis of Agricultural Projects

Economic concepts of costs and benefits; external effects; environmental spillovers, social rationale of welfare economics; economic measures of exact compensation; investment criteria – IRR, DPV normalization procedure for public investment; particular problems in project evaluation – the value of time saved, benefits of recreation area; opportunity cost of unemployment labour, and measuring pollution damage; uncertainty; case studies.

(3 units)

ACE 741 – Advanced Agricultural Cooperatives

Case studies in Cooperatives evaluation.

(3 units)

AEC 742 – Cooperative Business Management

Management analysis and evaluation of cooperatives and cooperative business

(3 units)

AEC 751 – Advanced Agricultural Finance

Advanced evaluation analysis of financial indicators, financial determinants of agribusiness and capital structure.

(3 units)

AEC 752 – Advanced Cost-Benefit Analysis

Case studies, costing criteria, benefit evaluation decision variables in project studies.

(3 units)

AEC 754 – Advanced Agricultural Project Analysis

Networking and sensitivity analysis, feasibility and evaluation plans project criteria and externalities.

(3 units)

AEC 790 – PhD Thesis

This is designed to train the candidates in theoretical analysis and scientific research on agricultural economics subjects. It is expected that from this training will emerge a contribution to agricultural economics knowledge, which will be embodied in the thesis.

(3 units)

PGC 701: SYNOPSIS AND GRANT WRITING

3 Units

Identification of types and nature of grant and grant writing; mining of grants application calls on the internet Determining appropriate strategy for each grant application. Study of various grant application structures and contents and writing of concept notes, detailed project description, budgeting and budget defense. Study of sample grant writings in various forms and writing of mock research and other grants. Identification of University of Nigeria synopsis structure and requirements (Introduction, Methodology and Results). Determining the contents of each sub-unit of the synopsis. Steps in writing of synopsis from the Dissertation/Thesis document. Structural and language issues. Common errors in synopsis writing and strategies for avoiding them. The roles of the student and the supervisor in the production of a synopsis. Writing of mock synopsis. All registered Ph.D students must attend a solution-based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course conducted by selected experts.