

**UNIVERSITY OF NIGERIA, NSUKKA**  
**FACULTY OF THE SOCIAL SCIENCES**  
**DEPARTMENT OF ECONOMICS**

**Postgraduate Programmes in Economics**

The Department of Economics offers postgraduate programmes leading to the award of Postgraduate Diploma (PGD) in Economics, Master of Science (M.Sc) in Economics and Doctor of Philosophy (PhD) degree in Economics.

**Philosophy, Objectives and Scope of Programme**

In keeping with the goals of the University and in line with the Nigerian Universities Commission (NUC) minimum benchmark for Postgraduate programmes in Economics, the postgraduate programme run by the Department of Economics have been redesigned to promote advanced training and research in Economics. The main objectives of the programmes are to develop highly competent and versatile professional economists through the provision of relevant academic and professional courses which are required in order to meet the challenges of the Nigerian economy in the context of globalization. In other words,

**Objectives of the Programmes**

**a. PGD Programme**

The ultimate objective of the programme is to continuously produce professional economists who are well armed to play positive roles towards the social and economic advancement of Nigeria, Africa and the world. In addition to preparing students for a career in public and private services, the postgraduate diploma (PGD) is designed to prepare students for advancement to a higher degree programme in Economics.

**b. M.Sc Programme**

The main objectives of the programmes are:

1. To develop highly competent and versatile professional economists through the provision of relevant academic and professional courses which are required in order to meet the challenges of the Nigerian economy in the context of globalization.
2. To continuously produce professional economists who are well armed to play positive roles towards the social and economic advancement of Nigeria, Africa and the world by playing advisory roles in government agencies, ministries and departments.
3. The key objective of the M.Sc Programme is to train and develop highly Professional economists, preparing and building up their independent intellectual capacity for

sustainable and creative useful careers in teaching and research in higher institutions of learning, research and administration in research institutes, government, non-governmental/national and international organizations, business organizations and specialized consultancy services.

4. To preparing students for a career in public and private services as well as in international institutions.

### **c. Ph.D**

The Department of Economics was motivated to introduce PhD courses in order to: (1) bridge the gap between the Master's degree holders trained in the Department and those coming from other universities (2) bring candidates who finished their master's degree many years ago up-to-date with the current trend, (3) provide basic training in advanced economic theory, research methods and econometric modeling to enable students produce high quality publishable PhD research in economics and (4) to meet the NUC minimum benchmark for postgraduate programmes in the Nigerian universities. In other words, the ultimate objective of the PhD coursework is to ensure quality control.

The main objectives of the programmes are:

The key objective of the Ph.D Programme is to train qualified economists, preparing and building up their independent intellectual capacity for sustainable and creative careers in teaching and research in higher institutions of learning, research and administration, in research institutes, government, non-governmental/national and international organizations, business organizations and specialized consultancy services.

## **ADMISSION REQUIREMENTS**

### **a. PGD**

The criteria for admission into any Post Graduate Diploma (PGDP) programme in Economics are as follows:

- Candidates must have five credit passes including English Language and Mathematics at O'level
- Candidates with Bachelors Degree of not less than 3<sup>rd</sup> class honor degree from an approved university
- Candidates with HND and/or professional qualifications cognate to Economics from recognized institution with not less than upper credit.

**b. M.Sc**

- Candidates must satisfy the matriculation requirements of the University including English Language and Mathematics.
- Candidates with Bachelor's degree in Economics from an approved university whose Economics programme is accredited by the NUC.
- Candidates with a minimum of second class lower degree and a CGPA of 3.00 on a five point scale.
- Candidates with a Post Graduate Diploma degree from a cognate discipline awarded by a recognized institution with not less than an upper credit.

**c. Ph.D**

All candidates must:

- Possess the university minimum requirement for a B.Sc degree in Economics
- Have obtained a Bachelor's degree from an approved university whose Economic Programme is accredited by NUC.
- Have a minimum of a Second Class Lower degree in the discipline.
- Hold a Master's degree in Economics with a CGPA of at least 4.0 on a 5.0 point scale.
- Submit a brief satisfactory statement of intended area of research.

Each candidate shall submit appropriate number of bound copies of a supervised Thesis as the final requirement for the award of the PhD degree. The supervised thesis must be based on original research, which must be orally defended successfully before an appropriate panel of examiners. The thesis must represent a specific original contribution to economic knowledge. Prior to submission for oral examination, each PhD student must give at least three seminars as follows: (1) presentation of research proposal (2) presentation of progress report and (3) presentation of final report. On no account must any of the steps be skipped for any student. Ph.D students whose works fail plagiarism tests will not be allowed to present their thesis proposals and may be asked to discontinue the programme by the Departmental Board. It is therefore mandatory that at each of the presentations, the submitted thesis will undergo plagiarism checks.

**AREAS OF SPECIALIZATION: M.Sc. and Ph.D**

**Areas of Specialisation**

- Economic Theory
- Econometrics
- Monetary Economics
- Labour and Industrial Economics
- International Economics

- Development Economics
- Mathematical Economics
- Operations Research
- Petroleum and Energy Economics
- Finance and Public Sector Economics
- Environmental Economics
- Health Economics.

## **DURATION OF PROGRAMMES**

### **a. PGD**

Maximum and minimum duration of Postgraduate Diploma (PGD) programme shall be:

Full-Time: A minimum of 2 Semesters  
 A maximum of 4 Semesters  
 Part-Time: A minimum of 4 Semesters  
 A maximum of 6 Semesters

### **M.Sc.**

Full-Time: A minimum of 4 Semesters  
 A maximum of 6 Semesters  
 Part-Time: A minimum of 6 Semesters  
 A maximum of 8 Semesters

### **Ph.D.**

Full-time: A minimum of 6 Semesters  
 A maximum of 10 Semesters.  
 Part-time: A minimum of 8 Semesters  
 A maximum of 12 Semesters.

## **REQUIREMENTS FOR GRADUATION**

### **a. PGD**

A candidate must have fulfilled the following conditions to be awarded a Post Graduate Diploma in Economics

i) Registered and passed a minimum of 30 credit units of both compulsory and elective courses as follows:

• Compulsory courses	15
• Electives	9
• Project	6
<b>Total</b>	<b>30</b>

**b. M.Sc**

To be awarded a Master of Science Degree in Economics, a candidate must pass a minimum of 33 credit units made up as follows.

**M.Sc. Courses**

(a) Core Courses:	Credit Units
Advanced Microeconomics	4
Advanced Macro-economics	4
Quantitative Research Method	3
Qualitative Method	2
Issues in Entrepreneurship	2
(b) Elective courses in the area of specialization	6
(c) Seminar	3
(d) Dissertation	6
<b>Total</b>	<b>30</b>

**c. Ph.D**

**Compulsory Courses:**

Selected Topics in Advanced Macroeconomics	4
Selected Topics in Advanced Microeconomics	4
Research Methods and Econometrics	4
Seminars	6
Thesis	12
<b>Total</b>	<b>30</b>

**DOMICILIATION OF THE PROGRAMME**

**a. PGD**

The PGD programme shall be domiciled in the Department of Economics and Faculty of the social sciences.

**Students Enrolment**

This shall not be more than 40% of the Postgraduate for academic Master's programme of the Department and shall be subject to the carrying capacity of the Department.

**External Examiner System**

The external examiner shall not be used at the end of the PGD programme to assess the courses and projects.

**b. M.Sc**

The external examiner must be a senior lecturer and above with a PhD in the discipline. The project shall be subject to external examiner's moderation where the student's thesis/project should be scored at the end of the examination. The pass mark for each course taken shall be 50 percent.

**c. Ph.D**

The Ph.D Programme shall consist of three components, namely, a course Work, Thesis Writing and Oral Defence. The course work would be for one academic session, and shall be taken only on a full-time basis. No candidate shall be accepted as a part-time PhD student who has not successfully completed the course work. Where appropriate, all courses failed must be repeated and passed. The pass mark for each course taken shall be 50 percent.

**List of Supervisors**

1. Professor Stella Ifeoma Madueme, B.Sc, B.Ed, M.Ed, M.Sc, Ph.D, Ph.D (Nigeria). Area of Specialisation: Economic Development
2. Professor Hyacinth Ementa Ichoku, B.Sc , M.Sc (Nigeria), M.Sc, Ph.D (Cape Town). Areas of specialization: Health and Development Finance
3. Professor Osita Ogbu, B.Sc (Nigeria), M.Sc., PhD (Howard). Area of Specialisation:
4. Gladys Ckikwe Aneke B.Sc (Nig), M.Sc. (Nig), Ph.D (Nig). Area of Specialisation: Development Economics
5. Ezebuilo Ukwueze, B.Sc (Hons), M.Sc., PhD (Nigeria). Area of Specialization: Development Economics
6. Jude O. Chukwu, B.Sc (Hons), M.Sc., PhD (Nigeria). Area of Specialisation: Development Economics
7. Dr. Uche M. Ozughalu, B.Sc (Nigeria), M.Sc, PhD (Ibadan). Area of Specialisation: Development Economics.

8. Emmanuel O. Nwosu, B.Sc (First Class Hons), M.Sc., (Nigeria), M.A. (Tsukuba), PhD (Nigeria). Areas of Specialisation: Development Microeconomics, and Microeconometrics,
9. Anthony Orji, B.Sc (Hons), M.Sc., PhD (Nigeria). Area of Specialisation: Finance and Development
10. Dr. Kojo Edeme, B.Sc., M.Sc (Deltsu), PhD (Nigeria). Area of Specialisation: Public Finance.
11. Dr. Nathaniel Emeka Urama, B.Sc. (First Class Hons), M.Sc, Ph.D (Nigeria). Area of Specialisation: Macroeconomics
12. Dr. Fredrick Onyebuchi Asogwa, B. Sc (Hons), M.Sc, Ph.D (Nigeria). Area of Specialisation: Public Finance
13. Dr. Jonathan Emenike Ogbuabor, B.Sc Compt/Stat (Hons) (Nig), MBA Bankin & Finance, M. Sc ECons (ESUT), M. Sc (York, UK), Ph.D (Nigeria). Area of Specialisation: Applied Time Series Econometrics and Financial Economics.
14. Dr. Ugbor Ikwor Kalu B.Sc Agric. Econs (Hons), M.Sc Agric Econs, M.Sc Econs, Ph.D Econs (Nigeria). Area of Specialisation: International Economics
15. Dr. Innocent Abanum Ifelunini B.Sc (Ed) (Hons), PGD Econs, M.Sc Econs, Ph.D Econs (Nigeria). Area of Specialisation: Development Economics.
16. Dr. Christy Ifeoma Mba B.Sc Statistics (Hons), M.Sc Econs, Ph.D Econs (Nigeria). Area of Specialisation: Monetary Economics.

## **LIST OF COURSES:**

### **PGD**

#### **Compulsory Courses**

		<b>credit units</b>
ECO.	0501 – Advanced Microeconomic Theory & Policy	3
”	0502 – Advanced Macroeconomic Theory & Policy	3
”	0505 – Research Methods	3
”	0503 – Economic Statistics	3
”	0506 – Econometrics	3

#### **Elective Courses**

”	0511 – Problems and Policies of Development	3
”	0521 – Monetary Theory and Policy	3
”	0532 – International Economics	3
”	0541 – Public Finance	3
”	0561 – Comparative Economic Systems	3
”	0571 – Mathematics for Economists	3

”	0533---Computer Applications	3
”	0562---Financial Aspects of Development	3
“	0591---Postgraduate Seminars	3

**SEMESTER DISTRIBUTION OF COURSES AND COURSE UNITS: COURSEWORK AND PROJECT REPORT FOR PGD**

First Semester		Second Semester	
Course	Credit Units	Course	Credit Units
1. ECO 0501: Advanced Microeconomic Theory and Policy	3	1. ECO 0502: Advanced Macroeconomic theory and Policy	3
2. ECO 0505: Research Methods	3	2. ECO 0506: Econometrics	3
3. ECO 0503: Economic Statistics	3	3. Elective	3
4. Elective	3	4. ECO 0592: Project	6
5. Elective	3		
Total	15	Total	15

**COURSE CONTENTS FOR PDG PRORAMME**

**ECO 0501 MICROECONOMIC THEORY AND POLICY (3 UNITS)**

Fundamental quantitative relationships; General equilibrium and disequilibrium; dynamic equilibrium analysis; Production functions: duopoly, oligopoly; bilateral monopoly and monopsony. Theories of determination of wages, rent, interest and profit; Optimization in theories of consumption and production. Economic efficiency; and equity; externalities; social and private costs. Pareto optimum; social welfare functions. Policy applications of microeconomic theories.

**ECO 0502 MACROECONOMIC THEORY AND POLICY I (3UNITS)**

Revision of income determination from simple closed economy to a four-sector economy; Detailed theories of consumption and investment functions; The classical and Keynesian theories, the theory of inflation; Business cycles and forecasting; The relation of these issues to leading problems in public policy; The rationale for the existence of the public sector, formulation of national economic policy; Planning principles and analysis; Policy objectives, instruments and implementation; Balance of payments equilibrium and disequilibrium; balance of payments adjustment mechanism; devaluation, contemporary issues in public policy in Nigeria.



**ECO 0505                      RESEARCH METHODS                      (3 UNITS)**

The objective of this course is to equip students with adequate knowledge and skills in the following aspects of Research methodology the philosophy of economic research; identification of researchable problems and the development of hypotheses or research questions. The course will also involve a detailed treatment of the methods and problems of collecting relevant research data, the format for presenting research results (i.e. from designing the table of contents to footnoting; referencing bibliography). Also to be covered are the various methods of establishing relationships between economic variables; basic elements of model building in economics; application of multivariate analysis, correlation and discriminant analysis; tests of causality (e.g. Sims-Granger tests, (Chow tests and sensitivity and stability of economic models) as well as analysis of variance. Chisquare tests, etc. students will be required to write a seminar paper in this course.

**ECO 0503                      ECONOMIC STATISTICS                      (3 UNITS)**

Sampling and sampling distributions; Estimation; Tests of hypotheses; Extension of Regression analysis (simple and multiple) and all the statistical tests of significance; Basic sampling and surveys; Growth surveys extensions of the analysis of variance; Chi-square.

**ECO 0506                      ECONOMETRICS                      (3 UNITS)**

Definition and scope of econometrics, stages of econometric research. Regression analysis (Simple and multiple) and the statistical tests of significance. Econometric problems (heteroscedasticity, autocorrelation, multicollinearity): their causes, detection, consequences and correction. Basic ideas of the identification problem, dummy variables, and distributed lags. Simultaneous equation estimation methods (2, SLS, 3 SLS, etc); Matrix treatment of multiple regression; Advanced treatment of the simultaneous equation estimation techniques. Instrumental variables.

**ECO 0511                      PROBLEMS AND POLICIES OF DEVELOPMENT (3 UNITS)**

Capital formation: Savings/capital accumulation. Various Income hypothesis: Implications for policy/saving: Institutional problems: land tenure system: Structural rigidities. Leadership style: Poverty and Income distribution, inequalities of power, prestige, status, political and economic participation in decision-making: population problem: Problems of food scarcity, housing, health/educational systems. Policy options to deal with these problems should be discussed.

**ECO 0521                      MONETARY THEORY AND POLICY                      (3UNITS)**

Role of money in the economy, money and net wealth, the demand for and supply of money under equilibrium and disequilibrium conditions, the monetary approach to the balance of payments, high powered money, monetary policy, international monetary policy.

**ECO 0532                      INTERNATIONAL ECONOMICS                      (3UNITS)**

Theories of international trade: Comparative advantage and factor proportions theories; alternative theories; static and dynamic gains from trade. Trade protection: free trade and restricted trade; tariffs and domestic protection. Theories of economic integration; International and regional trade organization; Balance of payments; the adjustment mechanisms; the foreign exchange market and balance of payment policies; fixed and flexible exchange rates. Exchange control and convertibility; international liquidity and the international monetary system. Foreign aid and capital flows.

**ECO 0541                      TAXATION AND FISCAL POLICY                      (3 UNITS)**

Rationale for the existence of the public sector; Taxation: the theory of taxation; taxation and tax incidence, welfare costs of taxation. Negative income tax. The Nigerian tax system with respect to personal income tax, import duties, excise and sales taxes. Fiscal policy- elements of fiscal policy: taxation, expenditure, debt management and monetary control. Techniques of revenue estimating. Fiscal federalism. Financing the Nigerian federalism. Principles, effects and problems of debt financing and tax financing in Nigeria.

**ECO 0571                      MATHEMATICS FOR ECONOMISTS                      (3 UNITS)**

Concept of Mathematical Economics, economic models, components of a mathematical model, types of functions, functions of two or more independent variables, equilibrium analysis in economics, linear models and matrix-algebra, concept of derivatives and economic application, optimization: equilibrium analysis, constrained optimization: Lagrange-multiplier method. Cobb Douglas function as a special case of the CES function, integrals and some economic applications, differential equations, simultaneous equations dynamic models, linear programming: Simplex method, input-output analysis and linear programming: Non-linear programming, game theory.

**ECO 0561                      COMPARATIVE ECONOMIC SYSTEMS                      (3 UNITS)**

Marxian ideals of development, free market system, mixed market economics; the Yugoslav, French, USSR, Japanese, Tanzania, Chinese, and Nigerian Experiences.

**ECO 0562                      FINANCIAL ASPECTS OF DEVELOPMENT                      (3 UNITS)**

The financial constraint, sources of development finance-domestic services, domestic credit creation and limitations, governing surplus, foreign finance, the debt problem.

## MASTER OF SCIENCE (M.Sc) IN ECONOMICS

### For M.Sc. the list of Courses includes

ECO	501 – Microeconomics I
”	503– Macroeconomics I
”	502 – Microeconomics II
”	504 – Macroeconomics II
”	505 – Mathematical Economics
”	591—Research Methods
”	506 – Econometrics II
”	511 – Economic Development & Planning
”	521 – Money and Banking
”	532 – International Economics
”	541 – Public Sector Economics and Finance
”	551 – Labour Economics & Industrial Relations
ECO	553 – Project Appraisal
”	561 – Demography
”	571 – Econometrics
”	572 – Advanced Mathematical Economics
”	574 – Environmental Economics
”	561 – Health Economics
”	582 –Energy and Petroleum Economics
”	592 – M.Sc Project/Dissertation

### SEMESTER DISTRIBUTION OF COURSES AND COURSE UNITS: COURSEWORK AND DISSERTATION FOR THE MSc PROGRAMME

First semester		Second Semester	
Course	Credit Units	Course	Credit units
1. ECO501: Microeconomics 1	2	1. ECO502: Microeconomics 11	2
2. ECO 503:Macroeconomics 1	2	2. ECO504: Macroeconomics 11	2
3. ECO505: Quantitative Methods	3	3. ECO506: Econometrics	3
4. ECO591: Research Methods	2	4. ECO562: Issues in	2



international policy coordination; The Macroeconomic Policy Debate and the Design of Macroeconomic Policy: The macroeconomic policy debate; Activism versus passivism; Rules versus discretion.

**ECON 505 MATHEMATICAL ECONOMICS (3 UNITS)**

Matrix algebra; special types of matrices; Transpose of a matrix; partitioned matrix; inverse of a matrix; Applications of matrix algebra in economics; eigen values and eigen vectors; the trace of a matrix; derivatives and partial differentiation; Jacobian matrices; maxima and minima; constrained maxima and minima; integral calculus and its applications to economic models; Difference equations: Linear first-order difference equations; Applications of difference in economic models; linear second order difference equations ; Applications of second order difference equations in economic models. First and second order differential equations and applications to economics; Simultaneous differential equations; phase diagram; Dynamic optimization, calculus of variations and optimal control and maximum principle; transversality conditions;

**ECON 506 ECONOMETRICS (3UNITS)**

*Microeconometrics*

Introduction to Cross-sectional and panel data analysis: panel data models: first difference estimator; Fixed effect and random effects models; Limited dependent variable models: probit, logit, bivariate probit and multinomial logit models; method of simulated maximum likelihood; Model Selection: two-step estimator and Heckman model selection.

*Time Series/Macroeconometrics*

Time series econometrics: Testing for stationarity; multivariate and single equation cointegration analysis and the estimation of error correction models; Structural breaks; VAR Models; ARIMA and GARCH models; introduction to macroeconomic model building; introduction to forecasting and simulations.

**ECO 591 RESEARCH METHODS (2 UNITS)**

The design of economic research project: statement of the research problem; research thesis; essence and techniques of literature review; methodology: survey method, historical method, econometric method, experimental designs, etc; estimation, diagnostic tests, and evaluation of hypothesis; inferences and conclusions. Basic issues in interpreting micro and microeconomic data; the base year, scaling of data, summary indicators, nominal and real magnitudes; implication of missing observations, small samples, poor quality of data, and inconsistencies, of data for economic analysis and inference; procedures for managing data; interpolations, and

interpolations; Sampling and sampling design (design and validation of research instrument): sample selection procedure and techniques of questionnaire design/administration; procedures for data collation (scoring and coding for computer analysis), Random variables and probability distributions.

**ECO 562                      ISSUES IN ENTREPRENEURSHIP                      (2 UNITS)**

The entrepreneur as a factor of production; basic elements in entrepreneurship development; the role of entrepreneurship in economic development (empirical evidence from journal papers will form examples). The factors militating against entrepreneurship development in Nigeria: regulation, infrastructure, access to credit, security, etc. Government efforts to encourage entrepreneurship development in Nigeria: building capacity, training, startup capital, self-employment as a policy, etc. Developing entrepreneurial capacity in Nigeria: feasibility studies, market analysis, locational advantage, cost of doing business analysis, etc. Analysis of enterprise surveys.)

**ECO 571                      ECONOMETRICS 1                      (2 UNITS)**

The Generalised Linear Model, Extensions of the Generalized Linear Model, Generalized Least-squares, Autocorrelation, Heteroscedasticity; Stochastic Regressors, Instrumental variables, errors in variables and endogeneity problem; simultaneous equation methods, Identification and estimation issues. Introduction to panel data analysis; Introduction to time series analysis: unit roots accounting for structural breaks; introduction to single equation and multivariate cointegration analysis.

**Elective Courses**

**ECO 511                      ECONOMIC DEVELOPMENT AND PLANNING                      (2 UNITS)**

*Section A: Development Macroeconomic issues and Planning*

Advance theories of economic growth and development: The Harrod-Domar model. The input-output technique and other aggregate models; Impact of industrial, commercial and agricultural policies; import substitution, export promotion, foreign aid, demonstration effects; The choice of planning techniques in national development plans: analysis of a number of planning models used in particular in Nigeria and other less-developed countries-successes and failures; Planning problems involving manpower demand and supply, regional development.

*Section B. Development Microeconomic Issues and Survey Data Analysis*

Introduction to Survey data analysis: Household and Demographic and Health surveys. Poverty: Poverty as a multidimensional concept; correlates of poverty, measurement issues and survey

data analysis; poverty alleviation and targeting; Income distribution: Inequality and various measurement issues; Gini-coefficient and Lorenz curves, Generalised Lorenz curves, generalized entropy index and decompositions; Analysis of pro-poor growth.

**ECON 521 MONETARY ECONOMICS (2 UNITS)**

Monetary Theory and Issues: Definition of money; Demand for money theories; Money supply theories; Instruments of monetary policy; Rules versus authority in Monetary policy; Transmission mechanism; Monetary versus fiscal actions; Money and economic growth; Banking Issues: An overview of the financial system structure; The Nigerian banking structure; Basic considerations in banking: Risk analysis; bank capital adequacy; bank earnings; Balance sheet management: liquidity concepts and policies, lending policies, investment instruments and policies; Comparative Financial Systems. Empirical papers in monetary and banking issues will form part of class room discussions.

**ECO 531 INTERNATIONAL ECONOMICS (2 UNITS)**

Trade theory: advanced treatment of the theories of international trade from classical to modern; Comparative statics of trade with respect to changes in tastes, factors endowments technology, etc, Alternative theories of trade and growth in developing countries. Commercial policy: The free trade doctrine and arguments for a restricted trade. Theories of tariffs, quota and other trade restrictive devices; Regional economic integration; international trade institutions; and international economic co-operation; International Financial Relations: The balance of international payment and the foreign exchange market. The developing countries and the international monetary system: the IMF, etc. Current issues in trade and other negotiations shall form part of class discussions.

**ECON 541 FINANCE AND PUBLIC SECTOR ECONOMICS (2 UNITS)**

Economic Rationale for state intervention; first and second fundamental theorems of welfare economics; assumptions under which markets are efficient; types of intervention; intervention and social justice; Public Goods and Preference Revelation; characteristics of public goods; free rider problem; optimal provision of public goods; Theory of Public Finance: The nature of the public sector. Theory of public revenue and expenditure. Fiscal Federalism; Taxation and fiscal policy; Public debt. Government subsidy.

**ECO 551 LABOUR ECONOMICS AND INDUSTRIAL RELATIONS (2 UNITS)**

Review of basic labour market theory; Theories of individual and household labour supply; Human capital theory. Wages and structure information in the labour market; the labour market: Efficiency, segmentation, and Flexibility. The relationship between labour market/processes and economic development. Theories of trade unionism. Theory of industrial relations. Institutional

aspects to the labour market, the Enterprise, Management and employers' associations. Aims and objectives of trade unions; Industrial conflict: Collective bargaining; Current issues in industrial relations; Industrial relations in Nigeria and other countries.

**ECO 553 PROJECT APPRAISAL (2 UNITS)**

The project concept; project cycle; Financial analysis and investment criteria for industrial project; Economic Analysis of Projects (Social cost-benefit studies), shadow pricing, distributional impact; special topics e.g. risk and uncertainty, project analysis and national economic planning, project management with particular emphasis on implementation, monitoring and evaluation.

**ECO 561 DEMOGRAPHY (2 UNITS)**

Demographic analysis; population census, vital statistics and registration; adjustment of demographic data including interpolation and graduation procedures; Analysis and measures of fertility, mortality and migration; The life Table; Population Projections; dynamics of population change and population models; Analysis of Demographic and health surveys data; Issues in Migration: Remittances flows; brain drain and migration policies in OECD countries.

**ECO 582 ENERGY AND PETROLEUM ECONOMICS (2 UNITS)**

political economy and empirical perspectives of energy policy and its implications for energy supply and demand; local, national, and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy; public policies affecting energy markets including taxation, price regulation and deregulation, energy efficiency, and control of emissions and environmental policy more generally. Production and marketing of oil products; Demand and distribution of petroleum products in Nigeria; Rationale of uniform pricing and retailing petroleum products. Petroleum subsidy; Contribution of petroleum to Nigeria's economy and its impact on agricultural policy and productivity. Oil crisis and inflation; Oil money flows and international financial system; International oil companies and the future of the OPEC.

**ECON 572 ADVANCED MATHEMATICAL ECONOMICS (2 UNITS)**

Difference and differential equations; stability properties of dynamic optimization over time, the calculus of variations, dynamic programming, optimal control and maximum principle; The application of dynamic optimization techniques to models of capital accumulation and economic growth. Introduction to stochastic models.

**ECO 574 ENVIRONMENTAL ECONOMICS (2 UNITS)**

Introductory Issues: Introduction: The emergence of environmental economics; Fundamental Issues in the economic approach to environmental issues; The drivers of environmental impact;



Poverty and inequality; Limits to growth; Concepts of Sustainability; Main Issues in Environmental Economics: Environmental Pollution: Pollution Control: Targets; A static model of efficient pollution; intertemporal analysis of stock pollution; International Environmental Problems: International Environmental cooperation: Game theory analysis; International treaties; Acid rain pollution, stratospheric ozone depletion, the greenhouse effect; international trade and the environment; Cost-benefit analysis and the environment; Valuing the Environment: Dimensions of value; The theory of environmental valuation; Environmental valuation techniques: travel cost method, contingent valuation, and other techniques; Natural Resource Exploitation: The efficient and optimal use of natural resources: a simple model of resource depletion; importance of natural resource in the production.

**ECO 563                      Health Economics                      (2 UNITS)**

*Course Content* Introduction to health economics: Health Facts and statistics within and across countries; Why Health Economics; Applying Economics to Health; Health as a Good and the production of Health. Economic evaluation in health care: Interrelationships between health care and health insurance markets, Health care costs, Production of health, Demand for Medicare, Market for Healthcare and Healthcare facilities. Advanced health economics: Modeling Health Care Demand; Health Insurance; Reproductive Health. Health care policy and statistics: Formulation of Health Policy; Provision and Regulation; Access to Healthcare and Inequality Analysis; Trade in Pharmaceuticals

**ECO 592                      MSc DISSERTATION                      (6 UNITS)**

The thesis must deal with a research problem chosen from the candidate's area of specialization in which the candidate must have done the relevant elective courses. The Report which is expected to be written in good English should demonstrate the candidate's mastery of literature and research methodology. The dissertation involves at least a three-stage process: (1) presentation of research proposal (2) Presentation of Final Report and (3) Grading by External Examiner. Candidates whose works fail to pass plagiarism tests will not be allowed to present their works.

**PGC 601                      Research Methodology and Application of ICT in Research                      (3 UNITS)**

This is in-depth research work aimed at acquiring full knowledge and presentation in scholarly writing of the concepts, issues, trends in the definition and development of the study of the study area from African and Western perspectives; Major steps in research: Selection of problem, Literature review, Design, Data collection, analysis and interpretation, Conclusions, Study of various research designs, Historical, Case Studies, Surveys, Descriptive, Cross sectional, Experimental, as well as Analysis, surveys and synthesis of conceptual and philosophical foundations of different disciplines. Identification of research problems and development of

research questions and or hypotheses are discussed. Detailed treatment of methods of collecting relevant research data and the format for presenting research results (from designing the table of contents to referencing, bibliography and appendix) are also part of this course; Data analysis and result presentation in different disciplines using appropriate analytical tools, Methods of project dissertation writing. This course also considers the Application of appropriate advanced ICT tools relevant in various disciplines for data gathering, analysis and result presentation; Essentials of Spreadsheets, internet technology and internet search engines.

### 3. DOCTOR OF PHILOSOPHY (PhD) PROGRAMME

#### Compulsory Courses:

Selected Topics in Advanced Macroeconomics	4
Selected Topics in Advanced Microeconomics	4
Research Methods and Econometrics	4
Seminars	6
Thesis	12
<b>Total</b>	<b>30</b>

#### Compulsory Courses

##### **ECO 601: Advanced Microeconomic Economic Theory and Policy 1 (first Semester) (2 UNITS)**

Advanced treatment of the Theory of the firm: technology of the firm; properties of the firm's technology; profit maximization; weak axiom of profit maximization and comparative statics; Cost minimization; weak axiom of cost minimization and comparative statics results; Advanced treatment of Consumer behaviour theory and applications to practical issues such as contingent valuation methods, agricultural household models; Decisions under Uncertainty: expected utility theory; risk aversion; principal-agent problem; insurance markets.

##### **ECO 602: Advanced Microeconomic Economic Theory and Policy 11 (Second Semester) (2 UNITS)**

Extensive treatment of theory of Games and its applications to the study of oligopoly models-classical and modern models. Market failures: externalities; public goods; and Asymmetric information; Introduction to mechanisms design. Institutional economics; economics of transaction;

**ECO 603: Advanced Macroeconomic Theory and Policy 1 (first Semester) (2 UNITS)**

Theories of Economic Growth and Fluctuations: Solow Model: Cross-country per capita income convergence; dynamic optimization, and applications to dynamics of economic growth; The new (Endogenous) Growth models and the challenge to the neoclassical models; Ramsey-Cass-Koopmans model and Over-lapping generations model, the role of Government purchases; real business cycle theory.

**ECO 604: Advanced Macroeconomic Theory and Policy 11 (second Semester) (2 UNITS)**

Techniques for dynamic analysis in general equilibrium models. Asset pricing in general equilibrium. Real business cycle models. optimal taxation in an intertemporal setting. The design of macroeconomic policy; Monetary and Fiscal Policies and economic stabilization; Instruments, Targets, and objectives; Feasible and optimal policy in a dynamic setting; Rational Expectations and other problems in optimal policy (Lucas critique) choice; the politics of policy-making. Review of Macroeconomic Models for Policy in African Countries.

**ECO 691: Research Methods I: Qualitative Research (first Semester) (2 UNITS)**

The design of economic research project: academic research proposal versus grant-seeking research proposal; identification and formulation of the research problem; formulation of main objectives and specific objectives; essence and techniques of literature review; documentation of literature sources; methodology: survey method, historical method, econometric methods, methods of experimental design. Theoretical and conceptual frameworks; Sources of research data; Sampling and sampling design (design and validation of research instrument): sample selection procedure and techniques of questionnaire design/administration; procedures for data collation (scoring and coding for computer analysis); data reduction: method of principal component, etc. The structure of the research thesis;

**Elective Courses**

**ECO 672: Research Methods II: Microeconometric Modeling (second Semester) (2 UNITS)**

Advanced treatment of Cross-sectional and panel data models: Analysis of household surveys using STATA; poverty and inequality analysis and policy simulation; panel data models: first difference estimator; Fixed effect and random effects models; panel instrumental variables and dynamic panels; attrition problems. Limited dependent variable models: probit, logit, bivariate probit and multinomial logit models count data models; two-step estimator and Heckman model selection. Econometrics of impact evaluation: matching techniques and regression discontinuity design. Computer/practical exercises.

**ECO 606: Research Methods III: Time Series and macroeconometric modeling (second semester) (2 UNITS)**

Advanced treatment of Time series econometrics: Testing for stationarity; accounting for structural breaks in the data, cointegration and the estimation of error correction models; ARDL models, structural VAR models, ARIMA and GARCH Models; forecasting with ARIMA, GARCH and VAR and VEC models; introduction to macroeconometric model building; forecasting and simulations; Computer/practical exercises.

**ECO 692 PhD Thesis (12 UNITS)**

The thesis must deal with a research problem chosen from the Candidate's area of specialization. It must show familiarity with existing Literature and a mastery of research methodology. It must also make an original contribution to knowledge and be publishable.

**PGC 701 Synopsis and Grant Writing (3 UNITS)**

This course identifies types and nature of grant and grant writing as well as meaning of grants application calls on the internet. The course Determines appropriate strategy for 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 are part of this course. Students are taught University of Nigeria synopsis structure and requirements, (Introduction, Methodology and Results); determining the content 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 are discussed. The roles of the student and the supervisor in the writing of synopsis are discussed as well as writing of mock synopsis.