



LANDMARK UNIVERSITY, OMU-ARAN

COURSE COMPACT

COLLEGE: College of Agricultural Sciences

DEPARTMENT: Department of Agriculture

PROGRAMME: Agricultural Economics and Extension Programme

COURSE COMPACT for: Omega Semester 2017/2018 Session

Course

Course code: AEC 511

Course title: **Econometrics**

Credit unit: 3

Course status: Compulsory

Lecturer's Data

Name of the lecturer : Olukosi J.O and Ajiboye B.O

Qualifications obtained : (B.Agric, M.Sc, and PhD Agricultural Economic)

Department : Agriculture

College : Agricultural Sciences

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Office Location: GF A015 and A004

Consultation Hours: Monday to Friday (1 to 4 p.m.).

Course

Course code: AEC 511

Course title and the credit unit: Statistics and Research Methods (2 Units)

Course status: Compulsory

Course Content :

Methodology and problems of farm and market surveys for data collection. Sampling techniques, including simple random, stratified random, cluster and systematic sampling techniques. Tabulation and presentation of statistical data with emphasis on histograms, graphs and frequency distribution. Measures of central tendency – mean (arithmetic and geometric) mode, median, quartiles and deciles. Measures of dispersion – variance, standard deviation, skewness and kurtosis. Probability distributions – binomial, normal, Poisson, etc. statistical inference – point and interval estimation, test of hypothesis. Correlation analysis – simple linear, multiple and partial correlation. Simple linear regression analysis. Multiple linear regression analysis.

Course Description:

AEC 511 introduces students to the procedure of carrying out academic research. It exposes students to the formulation of research problems, how to set research objectives, methods of data collection and analysis of research data. Some of the methods of data analysis to examine includes: Measures of central tendency – mean (arithmetic and geometric) mode, median, quartiles and deciles. Measures of dispersion – variance,

standard deviation, skewness and kurtosis. Probability distributions – binomial, normal, Poisson, etc. statistical inference – point and interval estimation, test of hypothesis. Correlation analysis – simple linear, multiple and partial correlation. Simple linear regression analysis. Multiple linear regression analysis.

Course Justification:

Research problem emanated from various sources such as mere observation, environment, human activities, knowledge gaps and so on. These problems can be solved through a well formulated academic research. Variables that constitute any problem can be subject to statistical measurement through the knowledge of statistics and research methods.

The knowledge of statistics and research methods is very crucial for the formulation of necessary economic policies for the nation. This is because it provides information on the interaction and relationship between economic variables. Thereby, providing the policy maker the opportunity to know the cause and effect of any change in economic variables.

Statistics and research methods also has special significance in preparing undergraduate students for a more rigorous graduate research study. It equips student with the necessary knowledge for an independent research study.

Course objectives

At the end of this course, students are expected to understand:

- (i) *Concept of research methodology and problems of farm and market surveys for data collection.*
- (ii) *Various methods of Sampling techniques.*
- (iii) *Tabulation and presentation of statistical data.*
- (iv) *Calculation of measures of central tendency and measures of dispersion*
- (v) *Use of descriptive and econometrics models*

Course Requirement – Illustration below:

Students are expected to derive maximum benefits from the course by focusing on the importance of solving problems in his/her environment. The course requires that each student meets the basic requirement for attendance, attending to given assignments and participation in class discussions.

Method of Grading

S/N	GRADING	SCORE(%)
1.	CAI	7%
	CAII (Mid –Semester Test)	15%
	CAIII	8%
2.	Final Examination	70
	Total	100

Course Delivery Strategies:

Powerpoint presentation and the use of white marker board for calculating and drawing of diagrams, charts and graphs.

LECTURE CONTENT

Week 1: CONCEPTUAL FRAME WORK OF RESEARCH

- The concept of research
- Characteristics of research
- Types of research
- Purpose of research
- Basic definitions in statistics
- Distinction between population and sample; census and sample survey; parameters and statistics etc.

Week 2: PROBLEM IDENTIFICATION & SETTING OBJECTIVES IN RESEARCH

- The concept of problems in research
- Characteristics of research problems
- Sources of suitable research problems
- Selecting a research topic
- Setting research question and objectives

Week 3: LITERATURE REVIEW

- Use of Internet
- At the end of the week, the students are expected to understand the basic concepts of consumption function
- They are expected to state consumption hypothesis

Week 4: POPULATION AND SAMPLING

- The purpose of Sampling
- Types and procedures for sampling
- Sampling Techniques
- Sample size

Week 5: QUESTIONNAIRE DESIGN

- Steps in Statistical enquiry
- Questionnaire design
- Sampling techniques

Week 6: RESEARCH REFERENCING

- Importance of references
- Methods of research referencing

Week 7: DATA CLASSIFICATION AND PRESENTATION

- Classification and tabulation of data
- Data presentation
- Bar Charts, pie charts, histogram, frequency polygon

Week 8: MEASURE OF CENTRAL TENDENCY

- Mean
- Median
- Mode

Week 9: MEASURE OF DISPERSION

- Mean deviation
- Variance and standard deviation
- Coefficient of variation

Week 10: CORRELATION ANALYSIS

- Purpose of correlation analysis
- Types of correlation coefficient
- Interpretation of correlation coefficient

Week 11: REGRESSION ANALYSIS

- Methods of estimating regression equations
- Interpretation of regression equation

Week 12: WRITING RESEARCH REPORTS AND PROPOSALS

- Chapter and sections constituting a research project report
- Chapter one- Introduction
- Chapter Two- Literature Review
- Chapter three- Methodology
- Presentation and Analysis
- The Discussion
- Recommendation, Implications
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➤ **Reading List - Books and materials students can read. Illustration below:**

Statistics Study Manual 1 by A.M Shittu, 2005

Week 13: Examination