STUDENTS WORKLOAD AND COURSE DESCRIPTION (FIRST SEMESTER M. AgSE IN AGRICULTURAL ECONOMICS AND ENVIRONMENTAL POLICY PROGRAM

<table>
<tr><th colspan="6">ADVANCED AGRICULTURAL ECONOMICS (MICRO & MACRO)</th></tr>
<tr><td colspan="2">Module code
AES 801</td><td>Student workload
4 ECTS (8hours/ week)</td><td>Credits
1.5 ECTS credits</td><td>Semester
1st. Sem.</td><td>Frequency
Each First Semester</td><td>Duration
1 Semester</td></tr>
<tr><td>1</td><td>Types of courses
a) Class Work
b) Seminars
c) Students' Presentation</td><td colspan="2">Contact hours
3 hours/week or 36 hrs/semester</td><td>Independent study
4 hours</td><td colspan="2">Class size
1 Student in 2014/15
7 Students in 2015/16
3 Students in 2016/17
6 Students in 2017/18</td></tr>
<tr><td>2</td><td colspan="6">Prerequisites for participation
a) Participation in the course is compulsory for all students admitted for M.AgSE
b) Participation is subject to confirmation of student registration for the course
c) Students are required to have basic elementary knowledge of principles of microeconomics and macroeconomics</td></tr>
<tr><td>3</td><td colspan="6">Learning outcomes
Knowledge outcomes
After studying all materials and resources in this course, the students will be able to learn the fundamental methods and theories of agricultural microeconomics and macroeconomics, and be provided with the basic tools and concepts required to understand scientific papers at the research frontier of microeconomic and macroeconomic theory.
Specifically, students will be able to:
a) have understanding of basic micro & macroeconomic analytical tools and their applications in agriculture;
b) have a thorough understanding of the underlying theory and grasp the methods to study problems relating to the behaviour of individual agents (consumers, business firms, and investors) and their interaction through markets and other social institutions;
c) be able to bridge theory with empirical implementation;
d) understand price theory, theory of consumer behaviour, theory of production & costs with emphasis on their applications in agriculture;
e) comprehend the analytical procedures and empirical techniques used in consumer demand;
f) have the basic knowledge of Partial and General equilibrium analysis;
g) understand the fundamentals of welfare economics. Poverty, income inequality;
h) be able to analyse discrimination and gender issues in development.
i) market based and social policies for enhancing social inclusion and sustainable development
Skills Outcomes</td></tr>
</table>

	The students will be able to read and understand scientific papers representing the research frontier of micro and macro agricultural economic theory. a) to read scientific articles in the fields of economics, finance and management science while understanding the role of invoked microeconomic assumptions and the references to standard microeconomic results; b) to formulate a microeconomic research question by structuring it as a formal model; c) manage to obtain useful economic predictions through the use of mathematical tools and a sound economic intuition; d) identify central measurable parameters, necessary for operationalizing microeconomic models.
4	**Subject aims** The module is designed to be an upper-level in agricultural microeconomic and macroeconomic theory to deepen student knowledge in topics such as consumer and producer theory, game theory, labor and capital markets, externalities, and public goods. The course is more algebra intensive than an introductory-level microeconomics and macroeconomic courses. **Course Contents** Students will learn the following contents: a. Basic theories and principles of micro and macroeconomics b. Tools of economic analysis c. Price theory, theory of consumer behaviour, theory of production & costs with emphasis on applications in agriculture; d. Partial and General equilibrium analysis; e. Fundamentals of welfare economics. Poverty, income inequality, discrimination and gender issues in development. f. Market based and social policies for enhancing social inclusion and sustainable development.
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations, and discussions
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination This course will be graded as follows: Individual Presentation 5%, Group Assignments 5%, Test(s) 20% Final Examination 70%
7	**This module is used in the following degree programmes as well** N/A
8.	**Responsibility for module** Dr. Obayelu Abiodun Elijah
9	**Other information** **1. Suggested References** (a) Adegeye, A. J .and Dittoh J. S (1985).Essentials of Agricultural Economics. Published by Impact Ltd Ibadan, Nigeria. (b) Barkley, A. and P. W Barkley (2016). "Principles of Agricultural Economics. Routledge; 2 edition (March 18, 2016). (d) Ritson, C. (1977) "Agricultural Economics: Principles and Policy". Published by Palgrave

Macmillan
(e) Nourse, E.G.(2017). "Agricultural Economics: A Selection of Materials in Which Economic Principles Are Applied to the Practice of Agriculture". CHIZINE PUBN. 930pp
(f) Dewett, K .K. (1976)."Modern Economic Theory : Micro and Macro Analysis. Orient Book Distributors, Dewett, K .K. (1976)."Modern Economic Theory : Micro and Macro Analysis. Orient Book Distributors, New Delhi.
(g) Colman, D.and T. L. Young (1989): "Principles of Agricultural Economics: Markets and Prices in Less Developed Countries". Cambridge University Press, New York.
(h) Nicholson, W. and C. Snyder (2012). Intermediate Microeconomics and Its Applications. Eleventh Edition. Cengage Learning.
(i) Debertin, David L. (2012). "Applied Microeconomics: Consumption, Production and Markets". CreateSpace Independent Publishing Platform
(j) Geoffrey, A. Jehle and Philip J. Reny (2011). Advanced microeconomic theory. Pearson Education Limited.
(k) Olayemi J. K (2004): Principles of Microeconomics for applied economic analysis.Published bi SICO publishers, Ibadan, Nigeria

Note:

2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester

3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester.

4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 801 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

ECONOMETRICS, STATISTICAL THEORY AND ANALYSIS					
Module code AES 803	**Student workload** 4 ECTS (8 hours/ week)	**Credits** (according to ECTS) 1.5 ECTS (3hrs of lecture)	**Semester** 1st. Sem.	**Frequency** Each First Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	36 hours	4 hours	1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18

2	**Prerequisites for participation**
	Basic knowledge of statistics, Econometrics, mathematics, and Research methods at the first

	degree
3	**Learning outcomes** After the completion of this course, the Students will: a) Understand the basic econometric techniques b) Be able to apply various econometric techniques with proper interpretation of their results
4	**Subject aims** The aim of the module is to 1. Equip students with necessary skills to be able to analyse their data using appropriate econometric techniques and interpret **2.** Develop students' with the skills formulating hypotheses; test such using the appropriate methods and make statistical inferences. **Course Contents** Econometric Techniques; The Classical Least Squares, Correlation Analysis, Regression Methods (Simplex Regression Model, Assumption of OLS) Violations of basic least squares assumptions: Consequences and remedies. Special (Probit, Logit and Trobit). Model in regression analysis-Dummy variables, Time as a trend variable, Distributed lag models with endogenous lagged variables. Maximum Likelihood, Generalized Least Square and Instrumental Variable Methods; Limited Dependent Variable Models; Multiple Equation Models. Estimations and Hypothesis testing, Prediction
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations, and discussions
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination Continuous Assessment Tests (20%), Assignment (10%) and Examination (70%)
7	**This module is used in the following degree programmes as well** N/A
8	**Responsibility for module** Prof. Carolyn Afolake Afolami
9	**Other information** **1. References** a) Dougherty, Christopher. 2007. Introduction to Econometrics , 3rd Ed. New York: Oxford University Press. b) Greene, William. 2002. Econometric Analysis, 5th Ed. New York: Prentice-Hall. c) Gujarati, Damodar. 2003. Basic Econometrics, 4th. Ed. New York: McGraw-Hill. Hill, d) R. Carter, William E. Griffiths, and Guay C. Lim. 2007. Principles of Econometrics, 3rd Ed. New York: Wiley. **Note:**

	2. This course is a 3 unit course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 803 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

AGRICULTURAL DEVELOPMENT AND POLICY ANALYSIS					
Module code AES 805	**Student workload** 4 ECTS (8 hours/ week)	**Credits** (according to ECTS) 1.5 ECTS (3hrs of lecture)	**Semester** 1st. Sem.	**Frequency** Each First Semester	**Duration** 1 Semester

1	**Types of courses** a) Class Work b) Seminars c) Students' Presentation	**Contact hours** 36 hours per semester	**Independent study** 4 hours	**Class size** 1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18
2	**Prerequisites for participation** Participation is subject to confirmation of student registration for the course			
3	**Learning outcomes** After the completion of this course, the Students will be able to: a) understand the economics of agricultural policies and development b) understand policy formulation process c) think critically about the need for policies and policy reforms d) understand the various theories of economic growth and the applications to agricultural industry e) know the general issues in agricultural development e.g. the roles of agriculture in economic growth and development. f) understand the attributes of the traditional/underdeveloped agriculture. g) agricultural growth and economic development in a globalized world. h) provide a chart drawing a clear distinction between the concepts of agricultural growth and agricultural development. i) understand the theories of agricultural and economic development, with assumptions and relevant models and critical appraisal. j) know the required preconditions for agricultural development i.e. how to move from underdeveloped to developed agricultural economy. k) establish the cultural, institutional and political impediments to progress in agriculture in developing countries. L) discuss the evolutionary and radical/transformational approaches to agricultural development. m) explain the concept, types and steps of agricultural development planning.			

	n) understand and explain the concept of cost-benefit analysis with special reference to private and public agricultural projects. o) present and analyze the agricultural policies of their countries with a view to knowing what went wrong and why (historical treatment of governmental policies and programmes affecting agricultural policies in developing countries and need for suggestions for possible solution for agricultural development and sustainability) p) know policy interventions in the Food and Farm Sectors in Nigeria as well as other developing and developed countries
4	**Subject aims** The aim of the module is to **1.** create the awareness in the students that agricultural development is desirable especially in underdeveloped economies where practically all of the rural population depend on agriculture for their livelihood, and where the entire country faces a looming food security crises. **2.** establish that agricultural development is specifically concerned with a rapid growth in agricultural production perse as well as fairly equal distribution of the benefits of development among the agricultural population. **3.** design appropriate policies and strategies to implement the various agricultural development programmes. **Course Contents** Economic Growth and Economic Development: concepts, measurement and emerging issues including sustainability and wise use of ecosystem services. The Classical, Neoclassical and Endogenous growth models; the economics of agricultural policies. Methods for analyzing costs and benefits of price supports, import restraints, and other policies for producers, consumers, and taxpayers. Policy interventions in the Food and Farm Sectors in Nigeria as well as other developing and developed countries including their motivations, policy instruments and consequences for factor owners and related commodity markets.
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations, and discussions
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination Individual Assignments 10%, Test(s) 10%, Policy paper presentation (10%), Final Examination 70%
7	**This module is used in the following degree programmes as well** Master in Agricultural Economics and Farm Management (M. Agric) FUNAAB
8	**Responsibility for module** Prof. Olumuyiwa Fowowe Ashaolu
9	**Other information** **a) References** (1) Hagen, E.E. (1962). "A Framework for Analyzing Economic and Political Development" in Development of Emerging Countries (ed)

(2) Jhingan, M.L.(2011): The Economics of Development and Planning. VRINDA publications (P) Ltd, Delhi, India. ISBN 978-81-8281-385-4

(3) Kuzents, S. (1955). "Economic Growth and Income Inequality". American Economic Review. Mar. 1955.

(4) Lipton, M. (1977). Why poor people stay poor: urban bias in world development. London: Temple Smith.

(5) Harris, John and Michael Todaro. 1970. "Migration, Unemployment, and Development: A Two-Sector Analysis."

American Economic Review 60: 126-142.

(6) Jorgenson, D.W. (1967). 'Surplus Agricultural Labour and the Development of a Dual Economy', Oxford Economic Papers, 19 (3); 288–312.

(7) Kaldor, Nicholas (1957) 'A Model of Economic Growth', Economic Journal, 67: 591-624.

(8) Lewis, W. A. (1954). Economic development with unlimited supplies of labour. The Manchester School, 22, 139-191.

(9) Rostow, W. W. (1960). "The Five Stages of Growth-A Summary". The Stages of Economic Growth: A Non-Communist Manifesto. Cambridge: Cambridge University Press. pp. 4–16.

(10) Gustav Ranis (2000): Economic Growth and Human Development. World Development 28 (2): 197-219.

(11) Idachaba, F.S.(2006). "Good Intentions are not Enough. Collected Essays on Government and Nigerian Agriculture Vol. 1: The Agricultural Policy Process. Univ Press Plc, Ibadan. ISBN 978-030-958-6.

(12) Idachaba, F.S.(2006). "Good Intentions are not Enough. Collected Essays on Government and Nigerian Agriculture Vol. 3: The Agricultural Research, Uncertainty and Diversification. Univ Press Plc, Ibadan. ISBN 978-030-960-8

(13) The Policy Analysis Matrix for Agricultural Development by Eric A. Monke and Scott R. Pearson . Published by Cornell Univ Pr; 2nd Printing edition (September 1, 1989)

(14) Agricultural Policies in Developing Countries vy Frank Ellis Cambridge University Press, 30 Jan 1992 - Business & Economics - 357 pages

(15) Agricultural development policy a contemporary agenda: Background Paper for GIZ by Steve Wiggins, John Farrington, Giles Henley, Natasha Grist & Anna Locke .Overseas Development Institute May 2013

(16) Agricultural and Food Policy by R.D. Knutson, JB Penn, B.L. Flinchbaugh, and J.L. Outlaw. Pearson Prentice Hall, New Jersey, 6th edition, 2007. (ISBN: 0131718738).

(17) Schmitz, A., C., Moss, T. Schmitz,W.H., Furtan and C. Schmitz, 2010. Agricultural Policy, Agribusiness and Rent Seeking Behavior, 2nd edition, University of Toronto Press

Note:

b). This course is a 3 units course which translates to 36 hours contact in a 12-week semester

c). FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester.

d). The workload includes both timetabled time in class and non-timetabled student work outside

	class. AES 805 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

AGRICULTURAL PRODUCTION ECONOMICS					
Module code AES 807	**Student workload** 4 ECTS (8 hours/ week)	**Credits** (according to ECTS) 1.5 ECTS (3hrs of lecture)	**Semester** 1st. Sem.	**Frequency** Each First Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	36 hours	4 hours	1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18
2	**Prerequisites for participation** Participation is subject to confirmation of student registration for the course Basic knowledge of Agricultural Production Economics at the first degree			
3	**Learning outcomes** After the completion of this course, the Students will: a) Be able to understand the theory of production and it application in agricultural industry b) estimate production and cost c) be able to measure productivity, efficiency, productivity growth and make farm planning under uncertainty on their own e) estimate dynamics and technology change f) understand optimization of production and farm planning under uncertainty			
4	**Subject aims** The aim of the module is to **1.** Equip students with necessary skills to be able to determine production efficiency, productivity, profitability of farm enterprises **2.** Plan for production under certainty and uncertainty **3.** Develop students' problem-solving skills to propose appropriate response strategies to climate change and variability affecting agricultural production **Course Contents** Theories of production; agricultural production functions; resources returns in agriculture; agricultural cost and supply function; Optimization of production and farm planning under uncertainty; efficiency and innovation in agriculture. Fixed asset theory, dynamics and technology change.			
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations,			

	and discussions
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination Continuous Assessment Tests (20%), Assignment (10%) and Examination (70%)
7	**This module is used in the following degree programmes as well** Master in Agricultural Economics and Farm Management (M. Agric) FUNAAB
8	**Responsibility for module** Dr. Dare Akerele
9	**Other information** **a) References** 1. David L. Debertin. Agricultural Production Economics (Second. Edition, Amazon Createspace 2012), published by Macmillan. (First Edition, Macmillan, 1986) 2. Bruce R. Beattie, Charles Robert Taylor, Myles J. Watts (2009). The Economics of Production, Second Edition. Krieger Publishers, 2009 3. John P. Doll, Frank Orazem (1978). Production Economics: Theory with Applications. Wiley, 1978 4. Chauncey T. K. Ching, John Fumio Yanagida (1985) Production Economics: Mathematical Development and Applications. Transaction Publishers, 1985 **Note:** b). This course is a 3 unit course which translates to 36 hours contact in a 12-week semester c). FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. d). The workload includes both timetabled time in class and non-timetabled student work outside class. AES 807 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

FINANCIAL MANAGEMENT AND ACCOUNTING					
Module code AES 811	**Student workload** 3.5 ECTS (7hours/ week)	**Credits** (according to ECTS) 1 ECTS (2hrs lecture/ week)	**Semester** 1st. Sem.	**Frequency** Each First Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work	24 hours (2 hours	4 hours	1 Student in 2014/15

	b) Seminars c) Students' Presentation	lecture per week		6 Students in 2015/16 3 Students in 2016/17 3 Students in 2017/18
2	**Prerequisites for participation** Participation in the course is optional for student admitted for M. AgSE Participation is also always subject to confirmation of student registration for the course.			
3	**Learning outcomes** On successful completion of this course students will be able to understand: a) Be able to prepare and interpret figures from various financial statements/reports b) Reconcile financial records and accounts			
4	**Subject aims** The aim of the module is to **1.** Equip students with basic knowledge of the principles and concepts of financial management of farms and agribusiness firms **2.** Equip students with the basic skills of business records book keeping and accountings **3.** Develop students' to be able to enter data for ledger, and sub-ledger compliance in order to meet auditing requirements 4. Prepare students to be able to prepare and interprete financial reports including budget, cash flow statement, trial balance, Profit and Loss Account and Balance Sheet **Course Contents** Principles and concepts of Financial Management of Farms and Agri-business firms. Strategies for acquiring and using capital resources. Business Records and Accounts. Book Keeping, Petty cash administrative. Reconciling financial records and Accounts. Creditor and Debtor Invoicing. Preparing and Processing Banking documents. Data entry for ledger, and sub-ledger compliance. Meeting an Auditing requirement. Preparing and Interpreting Financial reports including Budget, cash flow statement, trial balance, Profit and Loss Account and Balance Sheet. Finance and Insurance Institution			
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations, and discussions			
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination Continuous Assessment Tests (20%), Assignment (10%) and Examination (70%)			
7	**This module is used in the following degree programmes as well** N/A			
8	**Responsibility for module** Mr. Benjamin Atilade Bolarinwa			
9	**Other information**			

	1) References (a) Anao A. R. (1996). An Introduction to Financial Accounting (Second Edition). Longman, Nigeria. (b) Business Accounting 1 (12th Edition): Frank Wood and Alan Sangster (c) Robert O. Igben (2004).Financial Accounting Made Simple (FAMS) ROI Publisher, Nigeria (d) Accounting; An Introduction: Eddie Mclaney and Peter Atrill (f) Financial Accounting, An Introduction: Weetman P (g) Corporate Finance Simplified Manual: A Afolabi **Note:** 2). This course is a 2 units course which translates to 24 hours contact in a 12-week semester 3). FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester.. 4). The workload includes both timetabled time in class and non-timetabled student work outside class. AES 811 has a weight of 3.5ECTS credits (2hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

ECOLOGY OF LIVESTOCK, FOOD AND HEALTH ECONOMICS					
Module code AES 809	**Student workload** 3.5 ECTS (7hours/ week)	**Credits** (according to ECTS) 1 ECTS (2hrs lecture/ week)	**Semester** 1st. Sem.	**Frequency** Each First Semester	**Duration** 1 Semester

1	**Types of courses** a) Class Work b) Seminars c) Students' Presentation	**Contact hours** 24 hours (2 hours lecture per week	**Independent study** 4 hours	**Class size** 1 Student in 2014/15 6 Students in 2015/16 3 Students in 2016/17 3 Students in 2017/18
2	**Prerequisites for participation** It is an elective course .Student can only participate if registered for the course			
3	**Learning outcomes** **Knowledge outcomes** At the end of this course, the students will be able to learn the fundamental economics methods and theories applicable to food, livestock and health. Specifically, they will be able to have an understanding of the concept of: a) food economics;			

	b) livestock economics; c) health economics. **Skills Outcomes** Students will be able to demonstrably apply micro-economic theories and principles to the analysis of food, livestock and health issues. Students will be able to:- 1) describe livestock economics and explain the role and importance of food in an economy using the assumptions and principles of economic concepts such as Demand and Supply, Price Theory, Consumer Behaviour Theory, Theory of the Firm i.e. Theory of Production and Costs; 2) analyze health issues using microeconomic concepts such as Demand and Supply, Price Theory, Consumer Behaviour Theory, Theory of the Firm i.e. Theory of Production and Costs, Market Systems and Market Structure; 3) analyze food, livestock and health issues with the use assumptions and principles of macroeconomic concepts such as investment, interest rate, savings income distribution, and the labour market. 4) identify germane measurable parameters, necessary for operationalizing (micro- and macro-) economic models in the analysis of food, livestock and health sub-sectors of the economy; 5) obtain and manage useful economic predictions through the use of mathematical tools and a sound economic intuition.
4	**Subject aims** This course explores economic aspects of food safety, quality and nutrition and the ways in which economics can aid understanding of food safety, quality and nutritional issues. Food and Nutrition Security: Concepts, Measurements and Health Links; Environmental and Public Health Implications of Industrial Food Production ; Social, Economic & Policy Consideration in Food Production; Cultural & Political Considerations in Food Consumption; Sustainable Food Production System; Public Health Management. It aims at explaining the structure and processes in the food, livestock and health sub-sector of the economy using micro and macroeconomics assumptions, principles and theories. **Course Contents** i. Food Economics - a. The Concept of Food and Feed b. The Concept of Food Hub c. The Concept of Food Security d. Localization and Globalization of Agriculture e. The Concept of Industrial Agriculture f. Economics of Food Waste and Loss ii. Livestock Economics - a. The Role of Livestock in an Economy b. Livestock Production and Marketing c. Demand for Livestock Products and By-products iii. Health Economics - a. The Concepts of Health and Healthcare Economics b. Features and Functions of Healthcare Systems c. Healthcare Production and Demand d. Healthcare Marketing
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations,

	and discussions
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination This is evaluated as follows: Class Attendance 5%, Exercise 10% (Assignments 5% and Case study paper 5%), Test(s) 25% Final Examination 60%
7	**This module is used in the following degree programmes as well** N/A
8	**Responsibility for module** Dr. Rahman Akintayo Sanusi
9	**Other information** **1) References** Mostly online materials will be sourced and used for this course. Albeit, standard economics texts a basis of the economic theory and principles to be utilized for the course. These include: a. Blanchard, O. and Johnson, D. R. (2012). Macroeconomics. Pearson Education International, 6th e b. Salvatore, D. (1983). *Schaum's outline* of Theory and Problems of Microeconomic Theory. McGraw-Hill. c. Perloff, J. M. (2013). Microeconomics. 6th ed. Pearson Education Ltd. d. Olayide, S.O. and Heady, E. O. (1982). Introduction to Agricultural Production Economics. University Press, Ibadan. e. Debertin, D. L. (2012). Agricultural Production Economics. 2nd ed. Macmillan Publishers. f. Adegeye, A. J. and Dittoh, J. S. (2015). Essentials of Agricultural Economics. New Era Oluji Nig. Ltd. Rev. Ed. g. Health Economics (4th Edition) 4th Edition by Charles E. Phelps. Published by Prentice Hall; 4 (February 20, 2009) h. Food and Nutrition Economics: Fundamentals for Health Sciences (Food and Public Health) 1st by George C. Davis. Oxford University Press; 1 edition (April 13, 2016) i. Encyclopedia of Health Economics 1st Edition by A J. Culyer .Published by Elsevier, 2014 **Note:** 2). Students will be obliged to submit a duly completed assessment form, to be given by the course lecturer on their perception of the quality of teaching and teaching methods employed by the lecturer at the end of each week. 3). This course is a 2 units course which translates to 24 hours contact in a 12-week semester 4). FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 5). The workload includes both timetabled time in class and non-timetabled student work outside class. AES 809 has a weight of 3.5ECTS credits (2hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

INTEGRATED ECONOMIC MODELING AND SUSTAINABLE DEVELOPMENT					
Module code AES 813	**Student workload** 3.5 ECTS (7hours/ week)	**Credits** (according to ECTS) 1 ECTS (2hrs lecture/ week)	**Semester** 1st. Sem.	**Frequency** Each First Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	24 hours (2 hours lecture per week	4 hours	0 Student in 2014/15 0 Students in 2015/16 0 Students in 2016/17 0 Students in 2017/18

2	**Prerequisites for participation** It is an elective course. Student can only participate if registered for the course.
3	**Learning outcomes** After the completion of this course, the Students will: Be able to apply modelling approaches to real-world interdisciplinary economic problems
4	**Subject aims** a)To develop an understanding of the emerging concept of sustainable development; b)To analyse the value base behind a range of different interpretations of sustainable development; C)To appreciate the differences of approach to sustainable development **Course Contents** Understand some of the complexities of interdisciplinary policy problems, particularly in the areas of sustainable development; Integrated modelling approaches to real-world interdisciplinary economic problems; description of Microsoft Windows environment and an application of MS Office such as Word, Excel and PowerPoint; multivariate forecasting models; computer analysis of linearized and nonlinear models using Excel and General Algebraic Modelling System (GAMS); use of Agent-Based Modelling (ABM)
5	**Teaching methods** Lectures, sharing of materials via learning tools, case studies, group work, individual presentations, and discussions
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination Continuous Assessment Tests (20%), Assignments (10%) and Examination (70%)
7	**This module is used in the following degree programmes as well** N/A
8	**Responsibility for module** Course coordinator is responsible for teaching in class and grading of students efforts

9	**Other information** **1) References** a) Robert H. W. Boyer , Nicole D. Peterson , Poonam Arora and Kevin Caldwell (2016). Five Approac Social Sustainability and an Integrated Way Forward. Sustainability 2016, 8, doi:10.3390/su8090878 b) Farhad Noorbakhsh & Sanjeev Ranjan (1999) A model for sustainable development: inte environmental impact assessment and project planning, Impact Assessment and Project Appraisa 283-293, DOI: 10.3152/147154699781767684 C) Dresner, S. (2002) The Principles of Sustainability, Earthscan, London. d) Wackernagel, M. and Rees, W. (1996) Our Ecological Footprint: Reducing Human Impact on the New Society Publishers, Gabriola Island BC, Canada. e) Diana BAGDONIENĖ, Asta DAUNORIENĖ, Aušra SIMANAVIČIENĖ (2011). Integration of Sust Development Principles into The Balanced Scorecard. Intellectual Economics , 5(3):460–476Note **Note:** 2). This course is a 2 units course which translates to 24 hours contact in a 12-week semester 3). FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4). The workload includes both timetabled time in class and non-timetabled student work outside class. AES 813 has a weight of 3.5ECTS credits (2hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

FPV 821 is an optional Course in Food Processing and Value Chains Program for M'AgSE in Agric Econs and Environmental Policy students Interested

SECOND SEMESTER M.AgSE COURSES MODULES

RESOURCE AND ENVIRONMENTAL ECONOMICS					
Module code AES 802	**Student workload** 4 ECTS (8hours/ week)	**Credits** 1.5 ECTS credits	**Semester** 2nd. Sem.	**Frequency** Each Second Semester	**Duration** 1 Semester

1	**Types of courses** a) Theoretical Class Work b) Seminars c) Field Practical Class	**Contact hours** 3 hours/week or 36 hrs/semester	**Independent study** 4 hours	**Class size** 1 Student in 2014/15 7 Students in 2015/16

	Presentations			3 Students in 2016/17 6 Students in 2017/18
2	**Prerequisites for participation** a) Participation in the course is compulsory for all students admitted for M.AgSE b) Participation is subject to confirmation of student registration for the course c) Good knowledge of microeconomics, calculus, statistics and research methods evidenced by at least Grade C level passes of these or related courses at undergraduate levels. Ability to read, speak and write in English Language evidenced by at least O level Credit Pass in English Language.			
3	**Learning outcomes** Upon a successful completion of this course, students should be able to: a) Understand causes of market failure, and the link to environmental degradation and/or unsustainable use of ecosystems and natural resources; b) Be familiar with the main types of policy tools that governments can use to correct "market failures" related to the environment and natural resources; c) Apply non-market valuation techniques, including hedonic pricing, contingent valuation and choice experiments, among others, in support of Social Benefit-Cost Analysis in respect of ecosystems and natural resource uses problems; and d) Use economic modelling to evaluate various approaches to the design of efficient environmental policies and of rules for the optimal management of natural resources.			
4	**Subject aims** 1) This course exposes students to the economic principles underlying the design of efficient environmental policies and the optimal management of natural resources. 2) It identifies conditions under which market failures lead to unsustainable use of ecosystems and natural resources, and discusses economic policies that can counteract such market failures. 3) It exposes students to non-market valuation techniques including hedonic pricing, contingent valuation and choice experiments as tools of economic valuation in support of Social Benefit-Cost Analysis. Students are required to apply these tools in a practical analysis of a resource environmental policy issue of relevance to themselves or country of origin			
5	**Teaching methods** Class lectures, case studies, field practical/group work, assigned readings and discussions.			
6	**Assessment methods** Graded assignments (5-10marks), mid-semester test (15 - 20 marks), course project report and presentations based on field practical/group work (20 - 30marks) and final examination (50 marks)			
7	**This module is used in the following degree programmes as well** M. Agric. Agricultural Economics (Environmental and Resource Economics Option)			
8.	**Responsibility for module** Prof. Adebayo M. Shittu			
9	**Other information** **1. Recommended Text** Baker, R. and Ruting, B. (2014). *Environmental Policy Analysis: A Guide to Non-Market Valuation*, Productivity Commission Staff Working Paper, Canberra Dasgupta, P. (2010). The Place of Nature in Economic Development, Chapter 74 in Rodrik D and			

Rosenzweig, M. (Eds), *Handbook of Development Economics*, 5: 4977-5046.

Kahn, J.R. (2005). The Economic Approach to Environmental and Natural Resources. Third Edition, Thomson South-Western

Perman R., Ma, Y., Common, M., Maddison, D., and McGilvray, J. (2011). Natural Resource and Environmental Economics. Fourth Edition, Pearson-Addison Wesley

Note:

2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester

3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester.

4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 802 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

RESEARCH METHODOLOGY AND EXPERIMENTAL DESIGN

Module code	Student workload	Credits	Semester	Frequency	Duration
AES 804	4 ECTS (8hours/ week)	1.5 ECTS credits	2nd. Sem.	Each Second Semester	1 Semester

1	Types of courses	Contact hours	Independent study	Class size
	a) Class Work b) Seminars c) Students' Presentation	3 hours/week or 36 hrs/semester	4 hours	1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18

2 Prerequisites for participation

a) Participation in the course is compulsory for all students admitted for M.AgSE

b) Participation is subject to confirmation of student registration for the course

c) Basic knowledge of statistics and Research methods at the first degree

3 Learning outcomes

After the completion of this course, the Students will:

1) Be able to understand research process and scientific methods as applied in agricultural economics.

2) Understand sample designs and be able to apply the appropriate design and in agricultural researches

3) Understand methods of collecting data, questionnaire design and testing, field organization, and analysis of data

4 Subject aims

	The aim of the module is to 1) Expose students to field organization, and analysis of data 2) Equip students with the skills of sampling and experimental designs, methods of collecting data, questionnaire design and testing 3) Make students to be able to develop a research proposal that may be associated with his or her thesis **Course Contents** Discusses the research process and scientific method as applied in agricultural economics. Topics include problem identification, stating hypotheses, sources of data, sampling concepts and designs, methods of collecting data, questionnaire design and testing, field organization, and analysis of data. During the semester, each student develops a research proposal that may be associated with his or her thesis. Completely randomized designs randomized complete block design, lattice squares, factorial experiments, confounding variables. Analysis of data from animal production based research using statistical packages.
5	**Teaching methods** Class lectures, case studies, field practical/group work, assigned readings and discussions.
6	**Assessment methods** Continuous Assessment Tests (20%), Assignment (10%) and Examination (70%)
7	**This module is used in the following degree programmes as well** N/A
8.	**Responsibility for module** Prof. Carolyn A. Afolami
9	**Other information** **1. Recommended Text** a) Fundamentals of Research Methods: Economic, Environmental and Social Issues. Edited by Okuneye Peter Adebola. Published by Livelihoods Support and Development Centre (SLIDEN Africa), Nigeria 2016 b) Philip CashTino Stanković Mario Štorga (2016): Experimental Design Research: Approaches, Perspectives, Applications. Switzerland : Springer, c) John W. Creswell (2002). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Published July 23rd 2002 by SAGE Publications, Inc d) Nicholas Walliman (2010) . Research Methods: The Basics e) Dooley, David. 2001. Social research methods. 4th ed. Upper Saddle River, NJ: Prentice Hall. 385p. **Note:** 2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside

	class. AES 804 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

FARM PLANNING, MONITORING AND EVALUATION					
Module code AES 808	**Student workload** 4ECTS (8 hours/ week)	**Credits** 1.5 ECTs (3hrs of lecture)	**Semester** 2nd. Sem.	**Frequency** Each Second Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	3 hours/week or 36 hrs/semester	4 hours	1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18
2	**Prerequisites for participation** a) Participation in the course is compulsory for all students admitted for M.AgSE b) Participation is subject to confirmation of student registration for the course			
3	**Learning outcomes** After the completion of this course, the Students will: a) be able apply various tools in farm planning and management b) be able to conduct and prepare feasibility study and report writing c) be able to prepare a bankable business plan d) be able to plan under risk and uncertainties			
4	**Subject aims** The aim of the module is to 1) be able to understand farm planning, monitoring and evaluation in Farm Business Management. **Course Contents** Application of concepts and tools of Farm Business Management in Farm Planning and firm management. Feasibility Studies and Business Plan. Business Analysis and Planning. Interpretation and use of information for decision making in organizing and operating farm business to achieve goals. Methods of Farm Planning. Planning under risk and uncertainties. Farm Finance and Appraisal. Capital requirement in Agriculture. Monitoring and Evaluation. Cost Benefit Analysis. Time value of money.			
5	**Teaching methods** Class lectures, case studies, field practical/group work, assigned readings and discussions.			
6	**Assessment methods** The course is evaluated through various combinations of methods : final examinations, term papers, and oral presentations, individual study and group work This course will be graded as follows: Assignments 10%, Test(s) 20% Final Examination 70%			

7	**This module is used in the following degree programmes as well** N/A
8.	**Responsibility for module** Prof. Peter Adebola Okuneye
9	**Other information** **1. Recommended materials** a) Planning, Monitoring, and Evaluation: Methods and Tools for Poverty and Inequality Reduction Programs. World Bank, Washington D. C, b) James Price Gittinger (1982). Economic analysis of agricultural projects. Economic Development Institute of the World Bank **Note:** 2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 808 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

MARKETING & AGRO-INDUSTRIAL SUPPLY CHAIN MANAGEMENT					
Module code AES 810	**Student workload** 3 ECTS (6 hours/ week)	**Credits** 1.5 ECTs (3hrs of lecture)	**Semester** 2nd. Sem.	**Frequency** Each Second Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	3 hours/week or 36 hrs/semester	4 hours	1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18
2	**Prerequisites for participation** a) Participation in the course is compulsory for all students admitted for M.AgSE b) Participation is subject to confirmation of student registration for the course			

3	**Learning outcomes** The aim of the module is to a) prepare student to be able to apply the appropriate design and manage agricultural marketing channel for any agro-allied products b) understand competitions existing between Agricultural Products in Domestic and Foreign Trade c) understand the global Agrifood system through case studies
4	**Subject aims** The general objective is to understand basic marketing concepts and elements. **The specific course contents are:** Marketing Concepts. Marketing Mix. Industrial Organization. Competition for Agricultural Products in Domestic and Foreign Trade. Current development affecting market structure including effect of contractual agreement. Vertical Integration. Government Policy and Regulation. Traditional Livestock Supply Chain. The global Agrifood system; The traditional supply chains & its "bullwhip" effect; Food supply chain networks; Supply Chain Management and Logistics; Supply chain redesign; Case Studies of Supply Chain Management in the Agrifood Sector; Critical Success Factors in Supply Chain Management.
5	**Teaching methods** Class lectures, case studies, field trip, assigned readings and discussions.
6	**Assessment methods** The course is evaluated through various combinations of methods : final examinations, term papers, and oral presentations, individual study and group work This course will be graded as follows: Assignments 10%, Test(s) 20% Final Examination 70%
7	**This module is used in the following degree programmes as well** N/A
8.	**Responsibility for module** Dr. Adeyemo Ganiyu Adeyemo
9	**Other information** **1. Recommended materials** a) Chandrasekaran, N. and G. Raghuram (2004). Agribusiness Supply Chain Management. CRC Press Book b) Samir Dani (2015). Food Supply Chain Management and Logistics: From Farm to Fork. Kogan Page, London. ISBN 9780749473648 c) Jack G.A.J. van der Vorst, Carlos A. da Silva and Jacques H. Trienekens (2007). Agro-industrial supply chain management: concepts and applications. Agricultural Management, Marketing and Finance Occasional Paper. Food And Agriculture Organization of the United Nations, Rome, 2007 e) Agro-industries for Development. Edited by C da Silva, FAO, Italy, D Baker, FAO, Italy, A Shepherd, FAO, Italy, C Jenane, UNIDO, Austria, S Miranda-da-Cruz, UNIDO, Austria in 2009. CABI Publication **Note:** 2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours'

	work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. AES 810 has a weight of 5ECTS credits (3hrs for lecture, 1hour for exercise, 1hr for practical and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

APPLIED WELFARE ECONOMICS					
Module code AES 806	**Student workload** 3.5 ECTS (7hours/ week)	**Credits** 1 ECTS (2hrs lecture/ week)	**Semester** 2nd. Sem.	**Frequency** Each Second Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	2 hours/week or 24 hrs/semester	4 hours	1 Student in 2014/15 7 Students in 2015/16 3 Students in 2016/17 6 Students in 2017/18
2	**Prerequisites for participation** a) This is an elective course and is optional for students admitted for M. AgSE b) Participation is subject to confirmation of student's registration for the course			
3	**Learning outcomes** On successful completion of this course students will be able to understand: a) fundamentals of welfare economics. Poverty, income inequality b) choice and rationality c) expected utility and choice under uncertainty d) the effect of public policies on consumer and firm behaviour e) monopoly, oligopoly and monopsony markets f) game theory g) general equilibrium f) measure household and social welfare h) Key concepts and issues: 1) Market failure: externalities, asymmetric information, public goods and common pool resources. 2) Policy instruments and its applications 3) Environmental policy, management of natural resources, public goods and common pool resources. 4) Human health and nutrition policies and why do we care. 5) Local food issues and consumers behaviour			
4	**Subject aims** The aim of the module is to a) Make students appreciate the how to measure welfare change as a results of policy changes b) Equip students with necessary skills to be able to determine valuation of market and non-market goods c) equip students with knowledge of evaluating policies as taxes, price supports, quotas, pollution			

	controls, environmental damage liability, and intellectual property rights and externality on welfare **d.** Bring students up-to-date with practical methods of comparative static analysis of the effect of public policies on consumer and firm behaviour, and on market equilibrium f) make students to understand causes and effects of market failures **course contents :** Review of measures of household welfare, willingness to pay, and notions of Pareto optimality, aggregate welfare and market failure. Practical methods of comparative static analysis of the effect of public policies on consumer and firm behaviour, and on market equilibrium. Theory of externalities and welfare implications of market versus non-market allocation of public goods with emphasis on Livestock. Applications include evaluation of such policies as taxes, price supports, quotas, pollution controls, environmental damage liability, and intellectual property rights.
5	**Teaching methods** Lectures, sharing of materials via learning tools, *case studies, group work, individual presentations, and discussions*
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination This course will be graded as follows: Assignments 10%, Test(s) 20% Final Examination 70%
7	**This module is used in the following degree programmes as well** Master in Agricultural Economics and Farm Management (M. Agric) in Department of Agricultural Economics and Farm Management, FUNAAB
8.	**Responsibility for module** Dr. Abiodun Elijah Obayelu
9	**Other information** **1. Recommended materials** (a) Richard E. Just, Darrell L. Hueth, Andrew Schmitz (2004): The Welfare Economics of Public Policy: A Practical Approach to Project and Policy Evaluation. Published by Edward Elgar Publishing Limited, UK. (b). Yew-Kwang Ng (2004). Welfare Economics: Towards a More Complete Analysis Palgrave Macmillan (c) Varian, Hal R. (1992). Microeconomic analysis.3rd Edition, Library of Congress Cataloging-in-Publication, USA (d) David A. Besanko, Ronald R. Braeutigam (2010). Microeconomics. 4th Edition. Publisher: John Wiley & Sons; **Note:** 2. This course is a 2 units course which translates to 24 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside

	class. AES 806 has a weight of 3.5ECTS credits (2hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

ORGANIZATION AND MANAGEMENT OF COOPERATIVE					
Module code AES 312	**Student workload** 3.5 ECTS (7 hours/week)	**Credits** 1 ECTS (2hrs lecture/ week)	**Semester** 2nd. Sem.	**Frequency** Each Second Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work b) Seminars c) Students' Presentation	2 hours/week or 24 hrs/semester	4 hours	0 Student in 2014/15 7 Students in 2015/16 1 Students in 2016/17 1 Students in 2017/18

2 **Prerequisites for participation**

a) This is an elective course and is optional for students admitted for M. AgSE

b) Participation is subject to confirmation of student's registration for the course

3 **Learning outcomes**

On successful completion of this course students will be able to:

a) have a practical understanding of the organization and management of cooperatives in Nigeria.
b) understand the principles that guide the formation, organization, and activities of cooperative
c) appreciate the Uniqueness of Co-operative as a business entity
d) appreciate the Hierarchical Relationship of the Co-operative Management Organs, Responsibilities of each organ

e) be able to explain common issues that cause conflicts in Cooperative Societies and understand the essential principles of Conflict resolution
f) have a working knowledge of Performance Appraisal technique

4 **Subject aims**

The aim of the module is to enable students to be able to

i. Explain the nature of cooperatives.
ii. Trace the history of Cooperative Movement in Nigeria; identify the problems of Cooperatives
iii. Explain the principles that guide the formation, organization, and activities of cooperatives.
iv. Understand the laws which underlie the organisation and management of cooperatives
v. Explain the unique nature of a Cooperative as a Business entity in terms of decision-making processes, management selection, structure and returns on equity.
vi. Explain the Hierarchical Relationship of the Co-operative Management Organs and the Governance and Management Structure of a Co-operative Organization
vii. Explain the Nature and Structure of Cooperative Democracy.
viii. Explain the means to Achieving Good Working Relationship between the various organs of management
xi. Explain the importance Measures to Make Democratic Control Effective
x Explain the Operational Efficiency of Cooperatives, Performance Appraisal Concepts

5	**Teaching methods** Lectures, sharing of materials via learning tools, *case studies, group work, individual presentations, and discussions*
6	**Assessment methods** Individual Presentations, Group Assignments, Continuous Assessment, Summative Assessment, Written end-of-the-semester examination This course will be graded as follows: Assignments 10%, Test(s) 20% Final Examination 70%
7	**This module is used in the following degree programmes as well** N/A
8.	**Responsibility for module** Prof. Adewale Oladapo Dipeolu
9	**Other information** **1. Recommended materials** i). Organization and Management of Consumers' Cooperative Associations and Clubs (with Model By-Laws) : Bulletin of the United States Bureau of Labor Statistics, No. 598 ii) Cooperatives: Principles and practices in the 21st century by Cooperatives: by Kimberly A. Zeuli and Robert Cropp in 2004. Published by Madison, WI, University of Wisconsin iii) Cooperative Strategy: Economic, Business, and Organizational Issues by David Faulkner Mark de Rond . Oxford University Press (January 17, 2002). iv) Handbook on Cooperatives for use by Workers' Organizations by Guy Tchami. Published by the International Labour Organization **Note:** 2. This course is a 2 units course which translates to 24 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 812 has a weight of 3.5ECTS credits (2hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

Ph.D AgSE AGRICULTURAL ECONOMICS AND ENVIRONMENTAL POLICY STUDENTS WORKLOAD AND COURSE DESCRIPTION (FIRST SEMESTER)

ADVANCED MICROECONOMICS THEORY, ANALYSIS AND APPLICATION

Module code	Student workload	Credits	Semester	Frequency	Duration
AES 901	4ECTS (8 hours/ week)	1.5 ECTs (3hrs of lecture)	1st. Sem.	Each First Semester	1 Semester

	Types of courses	Contact hours	Independent study	Class size
1	a) Class Work b) Seminars c) Students Term Papers Presentation	3 hours/week or 36 hrs/semester	4 hours	2 Student in 2014/15 2 Students in 2015/16 2 Students in 2016/17 2 Students in 2017/18

2 Prerequisites for participation

a) Participation in the course is compulsory for all students admitted for PhD.AgSE

b) Participation is subject to confirmation of student registration for the course

c) Familiarity with Microeconomics at the level of Varian, H. R.

d) Intermediate Microeconomics. 8th edition. W. W. Norton, 2010.

e) Familiarity with Mathematics at the level of Sydsaeter, Knut and Hammond, Essential Mathematics for Economic Analysis, Prentice Hall, 3rd ed., 2008.

3 Learning outcomes

By the end of the course the student will:
1) be familiar with the main, unifying microeconomics principles and know how to analyse economic problems using the tools of microeconomics
2) know the main concepts of consumer choice and firm behaviour, and their relevance for equilibrium and welfare analysis
3) be able to identify market failure and evaluate economic policy with regard to efficiency and equity
4) able to formulate, estimate, and test complete systems of consumer demand equations;
5) be prepared to recognize situations of strategic interaction, as well as the methods to predict economic outcomes in those situations
6) be familiar with expected utility theory for decision-making under uncertainty;
7) know the limitations to economic policy
8) know of possibilities and limitations to mechanism design in applied policy fields, such as auctions and matching.
9) familiar with the literature of consumer demand applied to agricultural settings

4 Subject aims/ Contents

Consumer theory, Indirect utility, expenditure function and duality theory, revealed preference, measurement of household welfare due to price changes, consumer behavior under rationing, production and cost function, profit function and duality; theory of the firm and modelling, game theory, theory of market structure, Economics of regulation and deregulation, Economic choice under uncertainty, equilibrium analysis, review of methodology for economic analysis: direct and indirect functions; primal-dual approach; distance function; Static Econometric Models with Risk Aversion and Risk Neutrality; Models of Price Transmission, Time Series/Cointegration Models of Vertical and Spatial Price; Models of Choice in Dynamic Settings. Special topics in consumer theory such as labour supply, household production and intra-household allocation and welfare.

5 Teaching methods

Class lectures, case studies, field practical/group work, assigned readings and discussions.

6	**Assessment methods** The course is evaluated through various combinations of methods : final examinations, term papers, and oral presentations, individual study and group work This course will be graded as follows: Assignments 10%, Test(s) 20%, Oral presentation 20% Final Examination 50%
7	**This module is used in the following degree programmes as well** PhD Agricultural Economics and Farm Management, FUNAAB
8.	**Responsibility for module** Dr. Abiodun Elijah Obayelu
9	**Other information** **1. Recommended materials** a) Gravelle, R and Rees, R. Microeconomics. 3rd` ed. London: Pearson. 2004 b) Nicholson, W. Microeconomic Theory: Basic Principles and Extensions. 10th Edition. Thomson Learning 2007 c) Pindyck, R. and Rubinfeld, D Microeconomics. 6th ed. Pearson Prentice Hall, 2005. d) Waldman, Don E., 'Microeconomics', Pearson, Addison-Wesley, Boston, 2004. e) Ruey S. Tsay. Multivariate Time Series Analysis With R and Financial Applications. John Wiley, New Jersey, 2014. ISBN 978-1-118-61790-8 f) Bernhard Pfaff. Analysis of Integrated and Cointegrated Time Series with R, Second Edition. Springer, New York, 2nd edition, 2008. ISBN 978-0-387-75966-1. **Note:** 2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 901 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

ADVANCED MACROECONOMICS THEORY, ANALYSIS AND APPLICATIONS					
Module code AES 902	**Student workload** 4ECTS (8 hours/ week)	**Credits** 1.5 ECTs (3hrs of lecture)	**Semester** 2nd. Sem.	**Frequency** Each Second Semester	**Duration** 1 Semester

1	**Types of courses**	**Contact hours**	**Independent study**	**Class size**
	a) Class Work	3 hours/week or 36	4 hours	2 Student in 2014/15

	b) Seminars c) Students Term Papers Presentation	hrs/semester		2 Students in 2015/16 2 Students in 2016/17 2 Students in 2017/18
2	**Prerequisites for participation** a) Participation in the course is compulsory for all students admitted for PhD.AgSE b) Participation is subject to confirmation of student registration for the course c) This unit builds upon and extends the theoretical foundations laid in Intermediate macro-economics. It is expected that the students must have known the theoretical foundations in intermediate macro-economics			
3	**Learning outcomes** On successful completion of the course, students should be able to a) Knowledge on techniques for dynamic optimization with and without uncertainty b) Identify and explain the assumptions and structure of standard models in macroeconomics. c) Techniques for dynamic analysis in general equilibrium models d) Knowledge in Economic growth Real business cycle models e) Analyze and critically manipulate these models. f) Apply the models to interpret and analyze problems in macroeconomics g) Construct economic arguments in terms of macroeconomic concepts, and present such arguments in a logical manner h) Identify and assess environmental and sustainability considerations in problems in international macroeconomics.			
4	**Subject aims/ Contents** Macroeconomic Issues in Agriculture: rising food prices, agriculture and the macro-economy, globalisation and agricultural trade, exchange rates and international trade. Macroeconomic theories and models relating to the determination of output, employment, and the price level within classical, neoclassical, and contemporary frameworks. Review of empirical evidences on the macroeconomics of agriculture.			
5	**Teaching methods** Class lectures, case studies, field practical/group work, assigned readings and discussions.			
6	**Assessment methods** The course is evaluated through various combinations of methods : final examinations, term papers, and oral presentations, individual study and group work This course will be graded as follows: Assignments 10%, Test(s) 20%, Oral presentation 20% Final Examination 50%			
7	**This module is used in the following degree programmes as well** PhD Agricultural Economics and Farm Management, FUNAAB			
8.	**Responsibility for module** Dr. R. A. Sanusi			
9	**Other information** **1. Recommended materials**			

	a) Andolfatto David, Macroeconomic theory and Policy, Simon Fraser (2006). Gillman Max, Advanced Modern Macroeconomics Analysis and Application, Prentice Hall (2011). Jones Charles, Introduction to Economic Growth, Norton (2013) Romer David, Advanced Macroeconomics 3rd edition, McGraw Hill (2006). Olson, Ola, Essentials of Advanced Macroeconomic Theory, Routledge (2012). Wickens Michael, Macroeconomic Theory, Princeton University Press (2008). Williamson Stephen, Macroeconomics, 4th Canadian Edition, Addison Wesley (2013). **Note:** 2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 902 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory literature and preparing for and sitting for examinations)

DATA PROCESSING AND STATISTICAL SOFTWARE AND PACKAGES					
Module code AES 904	**Student workload** 5 ECTS (9 hours/weeks)	**Credits** 1.5 ECTs (3hrs of lecture)	**Semester** Second. Sem.	**Frequency** Each 2nd Semester	**Duration** 1 Semester

1	**Types of courses** a) Lectures and b) group participation	**Contact hours** 3 hours/week or 36 hrs/semester	**Independent study** 4 hours	**Class size** 2 Student in 2014/15 2 Students in 2015/16 2 Students in 2016/17 2 Students in 2017/18
2	**Prerequisites for participation** a) Participation in the course is compulsory for all students admitted for PhD.AgSE b) Participation is subject to confirmation of student registration for the course c) Basic statistics, knowledge of computer and research methods			
3	**Learning outcomes** On successful completion of the course, students should be able to a) analyse data using appropriate analytical software on their own and interpret results of analysis			
4	**Subject aims/ Contents** Data Processing File Management and Organization, Components of data processing, Methods of			

	data processing, Application of statistical software and packages such as Statistical Package for Social Sciences (SPSS), EXCEL, Access, STATA, statistical software (R), D-BASE, SAS, Matlab, EViews - Statistical, forecasting, and modeling tools; GAMS or GEMPACK software systems
5	**Teaching methods** Group work, lectures, discussion, practical demonstrations.
6	**Assessment methods** Continuous Assessment Tests, Home-works, term paper presentations, practical and examination
7	**This module is used in the following degree programmes as well** N/A
8.	**Responsibility for module** All Academic Supervisors on the programme
9	**Other information** **1. Recommended materials** a) Statistical Analysis Handbook A Comprehensive Handbook of Statistical Concepts, Techniques and Software Tools. 2018 edition by Michael J de Smith. Published by: The Winchelsea Press, Drumlin Security Ltd, Edinburg b) A Handbook of Statistical Analyses using Stata by Sophia Rabe-Hesketh Brian Everitt Third Edition (2004) by CRC Press LLC c) Statistical Procedures for Agricultural Research, 2nd Edition. Kwanchai A. *Gomez*, Arturo A. *Gomez*. ISBN: 978-0-471-87092-0. Feb *1984*. 704 pages d) Maria L. Rizzo. Statistical Computing with R. Chapman & Hall/CRC, Boca Raton, FL, 2008. ISBN 9781584885450 e) Applied Statistics for Scientific Studies. T. A. T. Wahua. Afrika Link Publishers, university of Ibadan , Nigeria. ISBN: 978-2915-15-7 f) Understanding and Applying Basic Statistical Methods Using R. 1st Edition by Rand R. Wilcox . Published by Wiley, 2006 g) Thomas Rahlf. Data Visualisation with R. Springer International Publishing, New York, 2017. ISBN 978-3-319-49750-1 h) Vikram Dayal. An Introduction to R for Quantitative Economics: Graphing, Simulating and Computing. Springer, 2015. ISBN 978-81-322-2340-5. i) Matthias Kohl. Introduction to statistical data analysis with R. bookboon.com, London, 2015. ISBN 978-87-403-1123-5 **Note:** 2. This course is a 3 units course which translates to 36 hours contact in a 12-week semester 3. FUNAAB operates credit system similar to the ECTS, One credit is equivalent to 25-30 hours' work (student workload). One year of full-time study completed with 60 ECTS credits would therefore take 1,500-1,800 hours. CEADESE students are advised to take 30 ECTS credits per semester. 1 ECTS credit corresponds to 2 hours/week and 1.5 corresponds to 3 hours/week of student work in a 12-week teaching semester. 4. The workload includes both timetabled time in class and non-timetabled student work outside class. AES 904 has a weight of 4 ECTS credits (3hrs for lecture and seminars, 1hour for exercise, and 4hours of student individual work (which cover homework, personal study, reading mandatory

	literature and preparing for and sitting for examinations)