

**FACULTY OF AGRICULTURE AND FORESTRY
UNIVERSITY OF IBADAN**

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DEPUTY COORDINATOR: DR. O.J. BABAYEMI**

History

The Faculty of Agriculture was established in 1949 as one department for the advancement of agriculture in applied science teaching and research. In 1962, the activities of this comprehensive department were split to form the Departments of Agriculture: Agricultural Biology, Agricultural Chemistry and Soils, and Agricultural Economics. In 1963, three new departments were created: the Departments of Forestry, Veterinary Medicine, and Veterinary Anatomy and Physiology. And at the same time, the name was changed to the Faculty of Agriculture, Forestry and Veterinary Science.

Following a further reorganization of the Faculty in 1966/67, the Department of Agriculture and Agricultural chemistry and Soil were re-named Agronomy and Animal Science respectively. In 1975, the Department of Veterinary Anatomy and Physiology, Veterinary Medicine and Surgery became the Faculty of Veterinary Medicine. There after, the Department of Agricultural extension Services came into being during the 1975/76 session while the Department of Wildlife and Fisheries Management was created during the 1981/82 session to make a total of seven departments now in the Faculty of Agriculture. The Department of Agricultural extension Services became the Department of Agricultural extension and Rural Development in the 1998/99 session. The academic departments constituting the faculty are now as follows:

1. Department of Agricultural Economics
2. Department of Agricultural Extension and Rural Development
3. Department of Agronomy
4. Department of Animal Science
5. Department of Crop Protection and Environmental Biology
6. Department of Forest Resources Management
7. Department Wildlife and Fisheries Management

The Faculty is known as “Faculty of Agriculture and Forestry”. The Faculty which had been housed in temporary building since 1949 has now completed Phases I and II of its building programme consisting of the Central Administration Building and Lecture theatres. The Department of Animal Science, Agricultural Economics, Agricultural Extension Services and Rural development, Forest Resources Management and Department of Agronomy. The newly created Department of Wildlife and Fisheries Management is currently housed in the Department of Forest Resources Management.

**MODIFIED FIVE-YEAR DLC DEGREE PROGRAMME
B.Sc. AGRICULTURE
UNIVERSITY OF IBADAN**

Distribution of Courses

100 Level

Course Code	Course Title	Unit	Status
AGB 210	Crop Anatomy, Taxonomy and Physiology	3	R
AGY 210	Introduction to General Agriculture (Crop)	3	C
SOS 210	Elements of Soil Science I	2	R
ANS 210	Principles of Animal Production	3	C

HES 210	Introduction to Home Economics	2	C
AGE 210	Introduction to Agricultural Economics	3	C
FRM 210	Introduction to Forest Resources Management	2	C
WFM 211	West African Fish and Wildlife	2	C
ABN 200	Introduction to Agric. Biochemistry	2	R
AGE 110	Mathematics in Agriculture	2	C

Total Units **33**

200 Level

General Studies

GES 101	Use of English	3	C
GES 102	Culture and Civilization	3	C
VAN 225	Veterinary Anatomy and Physiology	2	R
CHE 259	Physical Chemistry for Life Science	3	R
CHE 279	Basic Aromatic & Natural Product Chemistry Non-Majors	3	R
ABN 220	Introduction to Food Science and Technology	4	R
AGB 211	Introduction to Plant Protection	2	C
AGY 212	Principles of Agro climatology	2	C
AGE 201	Introduction to Computer Science in Agriculture	3	R
AGY 310	Principles of Crop Husbandry and Farming Systems	3	R
SOS 310	Introduction to Petrology, Mineralogy and Soil Physics	2	R
ANS 310	Introduction to Non-ruminant Animal Management	2	C
AGE 310	Farm Management, Records and Accounts	3	R
AES 310	Agricultural Extension Education	2	C

Total Units **29**

300 Level

General Studies

GES 103	Government, Society and Economy	3	C
AES 311	Educational Psychology and Extension Methods	3	R
ANS 313	Introduction to Ruminant Animal Mgt.	2	R
ANS 368	Elementary Topics in Animal Breeding	2	R
ABN 368	Biochemistry and Metabolism of Vitamins, Minerals and Hormones in Animal Production	2	R
AGY 350	Introduction to Tropical Crops	2	C
AGM 310	Agric. Mechanization I and Workshop Practice	3	R
SOS 311	Soil Chemistry and Microbiology	3	R
AGE 311	Introduction to Statistics and Field Expt.	3	R
AGB 310	Introductory Genetics	2	R
AGE 300	Computer Application in Agriculture	3	R
AGB 311	Principles of Crop Protection	2	C

Total Units **27**

400 Level

AGY 410	Crop Production Techniques	4	C
ANS 410	Animal Husbandry Techniques (Monagas)	2	C
AGM 410	Agric. Mech. II and Workshop Practice	2	C
AGB 411	Principles and Practices of Crop Protection	2	C
SOS 410	Soil Fertility, Soil and Water Use Management	2	C
AGE 410	Farm Management Records and Accounting	2	C
AES 410	Community Agricultural Extension	2	C
AGY 412	Agriculture Meteorology	2	C
AGM 412	Farm Mechanization	2	C
ANS 411/WP	Animal Health and Hygiene	2	C
AGY 411	Farm Design Survey and Land Use Planning	2	C
	Total Units	24	

500 Level**(Soil and Crop Science)**

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
HOR 510	Horticultural Crops	2	R
AGY 511	Crop Husbandry II (Cereal Legumes & Tuber)	2	R
AGY 530	Techniques in Field Experimentation and Data Analysis	2	C
SOS 512	Soil Survey and Remote Sensing	2	R
SOS 510	Soil Physics and Soil Conservation	2	R
SOS 512	Soil and Plant Analysis and Instrumentation	2	R
HOR 511	Landscape Horticulture	2	R
AGY/SOS 599	Special Project	4	
	Total	26	

500 Level (Animal Science)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
ANS 510	Poultry, Swine and Rabbit Production	2	R
ANS 511	Monogastric Nutrition	2	C
ANS 512	Ruminant Nutrition	2	C
ANS 515	Cattle, Sheep and Goat Production	2	C
ANS 520	Animal Breeding and livestock Improvement	2	C
ANS 521	Animal Products and Handling	2	R
AGE 513	Agric-Business Management	2	R
AES 512	Extension Programme, Planning and Evaluation in Extension	3	E
ANS 590	Seminar	3	C
ANS 599	Project	4	C
	Total Units	29	

500 Level (CP & EB)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
HOR 510	Horticultural Crops	2	R
HOR 511	Landscape Horticulture	2	R
AGB 512	Plant Disease Epidemiology and Control	2	R
AGB 523	Insect Morphology, Biology and Ecology	2	C
AGB 516	Applied Plant Numerology	2	C
AGB 517	Vertebrate Pests in Agriculture	2	R
AGY 511	Crop Husbandry II (Cereal Legumes and Tuber Crops)	2	R
AGB 599	Special Project	2	C
	Total Units	22	

500 Level (AGE & AES)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
HOR 510	Horticultural Crops Production	2	R
AGE 510	Agricultural Production Economics	3	C
AGE 511	Statistics & Research Methods	3	C
AGE 516	Econometrics	2	R
AES 510	Diffusion & Adoption of Innovation	3	C
AES 511	Agric Extension Adm. & Supervision	2	C
AES 512	Extension Programme Planning & Evaluation	3	C
AGE/AES 599	Special Project		
	Total Units	26	

600 Level (Soil & Crop Science)

SOS 511	Soil Microbiology and Chemistry	2	R
SOS 514	Soil Fertility and Plant Nutrition	2	R
AGM 510	Principles of Irrigation	2	R
AGY 513	Crop Husbandry III (forage crop and Management)	2	R
AGY 514	Weed Taxonomy, Biology & Control	2	R
AGY 520	Plant Breeding II: Applied Breeding	2	R
HOR 512	Storage & Preservation and Post Harvest Physiology of Fruits	2	R
AGY/SOS 599	Special Project	4	C
	Total Units	18	

600 Level (Animal Science)

		Unit	Status
VMD517	Animal Health and Diseases	2	R
ANS 523	Pasture & Range Management	2	R
ANS 525	Artificial Insemination in Farm Animals	2	C
ANS 530	Animal Production Research Techniques	2	R
ABN 510	Chemistry and Nutritive values of Nigeria Feed and feeding Stuff	2	C
ANS 599	Project	4	C
	Total	24	

600 Level (CP & EB)

AGB 510	Applied Genetics	2		C
AGB 511	Physiology of Crop Production & Improvement	2	R	
AGB 515	Economic Entomology	2		C
AGB 518	Pesticides and Pollutants in Agriculture	2		R
AGB 519	Taxonomy of Insect, Pests & Diseases causing Micro-organisms	2		R
AGY 520	Plant Breeding II	2		R
AGY 514	Weed Taxonomy, Biology & Control	2		R
HOR 512	Post Harvest Physiology & Product Storage	2		R
AGB 599	Special Project	4		5
Total Units		20		

600 Level (AGE & AES)

AGE 512	Agricultural Policy & Development	2		C
AGE 513	Agricultural Business Management	2		R
AGE 514	Rural Youth Extension Programme	2		R
RSS 513	Rural Problems & Public Policy	2		R
RSS 516	Theories of Social Change	2		C
AGE/AES 599	Special Project	4		C
Total Units		14		

Course Details

100 Level

Course No.	Course Title and Description	Unit	Status
AGB 210	Crop Anatomy, Taxonomy and Physiology Development of cells and tissues; Comparative anatomy of major plant organs; Enzymes, photosynthesis and translocation; Respiration and energy utilization; Water relations and mineral nutrition; Growth and development.	3	R
AGY 210	Introductions to General Agriculture (Crop) Origins and development of agriculture as an art and science, historical development of Nigerian agriculture; branches of agriculture; characteristic features of tropical agriculture in relation to production including soil management; agriculture and the Nigerian economy.	3	C
SOS 210	Elements of Soil Science I Soil, its origin and formation; physical and chemical properties of soil; soil moisture, soil survey and classification, soils colloids, soil reaction in relation to nutrient requirements and mineral nutrition of plants; general introduction to fertilizers, soil organic matter and soil	2	R

	organisms (soil biology), special reference to West Africa and Nigeria.		
ANS 210	Principles of Animal Production Animal Production and its development. The livestock industry- problem and prospects. Description of the breeds of cattle, sheep, goat, pigs, poultry and rabbits. Systems of livestock production. Feeding habit of farm animals. Principles of breeding and of livestock judging. General principles of management of the different types of farm animals.	3	C
HES 210	Introduction to Home Economics Definition and history of home economics; Concepts: Objectives and philosophy of home economics; Improving family living through home management; Food consumption pattern; Food nutrition; Theory of consumer behaviour; Food preservation and Methods of cooking.	2	C
AGE 210	Introduction to Agricultural Economics This course introduces students to basic microeconomic and macroeconomic concepts as applied to agriculture and the entire Nigerian economy. It also discusses the roles of agricultural economics in the economy. The microeconomic component covers consumer theory, the theory of production and cost, and market equilibrium analysis under perfect and imperfect markets. The macroeconomic component covers national income accounting, money and banking and theories of international trade, including the theory of factor endowment and comparative advantage. The students are also introduced to the field of agricultural economics-agriculture as an economic activity, economic problems facing agriculture in Nigeria, agriculture and the rural economy, and scope of agricultural economics.	3	C
FRM 210	Introduction to Forest Resources Management Renewable natural resources, availability, distribution and potentials in relation to the needs of society, organization of forest	2	C

	and wildlife services. Introduction to forest taxonomy.		
WFM 211	West African Fish and Wildlife Classification, Morphology, Evolution and Life Cycles of principal species of animal Management Involved in Fishery, Wildlife, and Range. Status of species composition.	2	C
ABN 200	Introduction to Agric. Biochemistry Chemistry of carbohydrates, lipids, proteins and nucleic acids. Vitamins and their coenzyme functions. Minerals. The nature, classification and function of enzymes and hormones	2	R
AGE 110	Mathematics in Agriculture Mathematical principles with special applications to agricultural problems. Elementary properties of set. Linear economic models and matrix algebra. Algebraic functions and economic relationships. Comparative statics and the concept of derivatives. Rules of differentiation and their applications in comparative statics. Integral calculus. Constrained and unconstrained optimization and its economic applications. Natural exponential functions and the problem of growth. Economic dynamics and their applications.	2	C
	Total Units	33	

General Studies

GES 101	Use Of English An intensive, practical and skill-oriented English course specifically designed to develop essay writing skills (Organisation and logical presentation of ideas, dictation, grammar and style), functional reading skills (comprehension, analysis evaluation, logical inference and effective application, oral presentation skills and listening comprehension and note taking.	3	C
GES 102	Culture and Civilization The individual, society, environment, language ethnicity, culture, dynamics of culture, change with reference to cultural and social history vis-à-vis archaeological studies. African cultural heritage and progress from earliest times to the present, with special mention of features like farming, metallurgy trade. Urban and rural life in Nigeria will be treated in-depth.	3	C

	Socio-cultural and ecological problems, etc.		
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200 Level

VAN22 5	Veterinary Anatomy and Physiology (see Fac. of Veterinary Medicine Prospectus)	2	R
CHE259	Physical Chemistry for Life Science (see Fac. of Science Prospectus)	3	R
CHE279	Basic Aromatic & Natural Product Chemistry Non-Majors (see Fac. of Science Prospectus)	3	R
ABN 220	Introduction to Food Science and Technology Definition and scope of food science and technology. Food distribution and marketing. Food and its functions. Food habits, food poisoning and its prevention. Principles of food processing and preservation methods. Deterioration and spoilage of foods, other post harvest changes in food. Contamination of foods from natural sources. Composition and structures of Nigerian/West African foods; factors contributing to texture, colour, aroma and flavour of food. Cost, traditional ethnic influences of food preparation and consumption pattern.	4	R
AGB 211	Introduction to Plant Protection An introduction to the structure, life history, classification and importance of insects, nematodes, fungi, bacteria and viruses.	2	E
AGY 212	Principles of Agro climatology Heat and water balance of the earth. Evaporation and evapotranspiration, irrigation and drought in relation to agriculture. Crop forecasts. Climate of West Africa. Climatic maps.	2	E
AGE 201	Introduction to Computer Science in Agriculture Introduction to information technology; computer hardware; the System Unit of a Micro Computer; storage; communication; application of software; types of software; social, ethical and economic issues relating to IT.	3	R
AGY 310	Principles of Crop Husbandry and Farming Systems Introductory review of mainly tropical farming systems and potentials for improvement. Principles underlying husbandry methods for the production of field and horticultural crops including	3	R

	among others land cleaning, crop rotation, soil fertility maintenance crop protection, weed management, harvesting and processing methods and storage including seed storage. Agronomic classification of crops.		
SOS 310	Introduction to Penology, Mineralogy and Soil Physics Soil morphological characteristics, soil components, soil forming rocks and minerals, weathering of rocks and minerals. Profile description. Elements of soil physics; soil water relations, temperature, aeration, texture and structure. Soil erosion	2	R
ANS 310	Introduction to Non-Ruminant Animal Management Management of breeding stock, growing and young animals. Housing, equipment and feeding principles of poultry, rabbits and pigs. Production and management practices. Livestock economics. Health management of stock, processing and marketing of poultry, pigs and rabbits.	2	E
AGE 310	Farm Management, Records and Accounts Economic principles and farm management; farm assessment and planning; methods of farm planning; budgetary control as an aid to farm management; farm resources; basic concept of accounting as a tool for farm management; procedures for keeping and analyzing records; efficiency ratios.	3	R
AES 310	Agricultural Extension Education Extension agent & the rural change process; institutional setting of agricultural extension; agricultural extension in the world; definition & concept of education; outreach methodologies in extension.	2	C
	Total Units	29	

General Studies

GES 103	Government, the Society and the Economy Concept and scope of psychology, research methods in psychology and life experiences. Concepts of society and the typologies of society. Politics and government, structure, nature and characteristics of government, tiers of government. Concepts of development, characteristics of developing economies, growth and development in the Nigeria	3	C
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	economy since Independence. Man and environment, uses of human and natural resources.		
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300 Level

AES 311	Educational Psychology and extension Methods Concepts of psychology; personality development; concept of intelligence; concepts of measurement in psychology; extension teaching & learning and motivation, classification and description of extension methods.	3	R
ANS 370	Introduction to Ruminant Animal Management Management of breeding stock, growing and young animals. Housing, equipment and feeding principles of cattle, sheep and goats. Production and management practices. Livestock economics. Health management of ruminant animals. Products.	2	R
ANS 368	Elementary Topics in Animal Breeding History of genetics; chromosomes structure, number and variations. Gene, Genotype, Genetic code, Mendelism. Fundamental principles of inheritance, quantitative and qualitative characters and their inheritance. Different types of gene actions, values and means, repeatability, heritability etc. Animal variation and selection principles. Breeding and environmental effects, inbreeding, pure line breeding and other breeding methods.	2	R

ABN 368	Biochemistry and Metabolism of Vitamins, Minerals and Hormones in Animal Sources of vitamins and minerals, requirements by farm livestock, their metabolism and hormonal influence in farm livestock.	2	R
AGY 350	Introduction to Tropical Crops Media of plant nutrition, mechanisms of nutrient absorption and translocation; nature of soil fertility in terms of plant nutrients supply and role in crop plant productivity.	2	C
AGM 310	Agric. Mechanization I and Workshop Practice Introduction. Machine elements such as gears, pulleys, belts, chains etc. common	3	R

	field machinery and equipment such as ploughs, harrows, planters, cultivators, fertilizer and chemical applicators; harvesting and field processing equipment. Agricultural waste disposal.		
SOS 311	Introduction to Soil Chemistry and Microbiology Chemical composition of soils. Soil fertility evaluation, silicate mineral chemistry; cation and anion exchange and base saturation. Soil reaction, liming. Survey of microorganisms in soils and their role in soils. Dynamics of N, P and S pools. Association between microbes and plants.	3	R
AGE 311	Introduction to Statistics and Field Experimentation Exposure to descriptive statistics; field experimental designs in agriculture. Collection, collation, evaluation and analysis procedures for agricultural data. Sampling techniques, probability theory, tests of hypothesis, binomial and normal distributions. Analysis of variance, analysis of paired data, covariance analysis, and non-parametric statistical methods in agriculture.	3	C
AGB 310	Introductory Genetics Fundamental principles of inheritance Mendelian genetics, linkage, crossing over and Chromosome mapping, Mutation, Chemical basis of heredity and gene function, genes in population and the theory of evolution.	2	R
AGE 300	Computer Application in Agriculture IT in information production, storage and retrieval. IT in communication, output generation and delivery. IT and automation in agriculture. Applications in agricultural production and marketing, consumption and product utilization.	3	R
AGB 311	Principles of crop Protection The major pests, diseases and parasitic nematodes of tropical crops and stored products, and their control and management; Practical crop production.	2	C
	Total Units	27	

400 Level

AGY 410	Crop Production Techniques Practice of husbandry methods of field and horticultural crops from land clearing, planting through to harvesting, processing	4	C
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	and storage. Agro meteorology.		
ANS 410	Animal Husbandry Techniques (Monagas) A broad treatment of the breed types, world distribution, management, feeding and disease problems of farm livestock	2	C
AGM 410	Agric. Mech. II and Workshop Practice Largely practical and demonstrations. Principles of and machinery for crop processing, preservation and storage as well as waste disposal, refrigeration; associated farm buildings. Farm machines include mills and mixers, oil presses, shellers, hullers, crackers etc.	2	C
AGB 411	Principles and Practices of Crop Protection Crop protection principles and related concepts; Ecological approach to pest management; Crop loss assessment methods; Pest control methods and their application.	2	C
SOS 410	Soil Fertility, Soil and Water Use Management Mainly practice in the use of inorganic and organic soil amendments in soil fertility maintenance as well as sustainable utilization of soil and water resources in crop production in the context of environmental management.	2	C
AGE 410	Farm Management Records and Accounting Economic principles and farm management; farm assessment and planning, methods of farm planning; budgetary control as an aid to farm management, basic concept of accounting as a tool for farm business management; procedures for record keeping and analysis; role of credit in agricultural development; financial intermediaries credit sources; interest rate and time value of money; government credit programmes for Nigerian agriculture.	2	C
AES 410	Community Agricultural Extension Concept of community; groups in community as agents of change; use of participatory tools in problem identification and solution development; survey methods; data collection/questionnaire administration; use of interventions in community development.	2	C

AGY 412	Agriculture Meteorology Media of plant nutrition, mechanisms of nutrient absorption and translocation; nature of soil fertility in terms of plant nutrients supply and role in crop plant productivity	2	C
AGM 412	Farm Mechanization Introduction. Machine elements such as gears, pulleys, belts, chains etc. Common field machinery and equipment such as ploughs, harrows, planters, cultivators, fertilizer and chemical applicators; harvesting and field processing equipment. Agricultural waste disposal.	2	C
ANS 411/WP	Animal Health and Hygiene A broad treatment of the breed types, world distribution, management, feeding and disease problems of farm livestock.	2	C
AGY 411	Farm Design Survey and Land use Planning Farm design and layout. Basic principles of soil survey; soil and land capability classification and practical applications such as in farm design and layout.	2	C
Total Units		24	

500 Level (Soil and Crop science)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
HOR 510	Horticultural Crops Production History, botany, economic importance, production practices including greenhouse and nursery management, harvesting, processing and storage of selected tropical fruit, tree and vegetable crops. Hydroponics. Also principles of orchard management of tropical plantation crops.	2	R
AGY 511	Crop Husbandry II (Cereal, Legumes & Tuber) History, botany, economic importance, production practices including crop protection, harvesting, processing and storage of tropical grain crops.	2	R
AGY 530	Techniques in Field Experimentation and Data Analysis Planning, design of experiments, especially field experiments and analysis of	2	C

	experimental data in crop and soil sciences. Data collection, summarization and presentation; field characteristics and plot layouts; also field surveys: methods and problems.		
SOS 512	Soil Survey and Remote Sensing The soil profile: study and description; the main systems of soil classification; soil survey methods; aerial photographs, stereo-viewing points transfer, photo interpretations; land classification; use and misuse of land in the tropics; soil mapping.	2	R
SOS 510	Soil Physics and Soil Conservation Extension of SOS 310 in greater depth and as part of environmental management. Soil conservation; erosion, drainage, tillage and irrigation.	2	R
SOS 513	Soil and Plant Analysis and Instrumentation Analysis of soils and plants for major and minor elements and interpretation of data. Maintenance and operation of major analytical instruments. Evaluation of analytical errors and systems for monitoring analytical procedures.	2	R
HOR 511	Landscape Horticulture Plants for the landscape, landscape design, planning, symbols and drawings. Residential landscape, institutions, parks and sports grounds. Field trips.	2	R
AGY/SOS 599	Special Project	4	C
	Total Units	26	

500 Level (Animal Science)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
ANS 510	Poultry, Swine and Rabbit Production Buildings and equipment; incubation and hatchery management of poultry eggs; turkey, geese, duck and guinea fowl production. The application of the principles of carcass cuts in swine and measures of carcass quality. Marketing.	2	R
ANS 511	Monogastric Nutrition Principles of monogastric nutrition, elements of human nutrition; dietary allowances, food surveys, food balance sheets; feeding standards; nutrient requirements for the various classes of animals, feed additives. Water in	2	C

	relation to nutrition. Metabolic water computation and ration formulation. Feed evaluation, feed mixing and feed manufacture on large scale. The feed industry.		
ANS 512	Ruminant Nutrition Microbiology of the rumen. Physiology of rumen action; metabolic processing pathways; non-protein nitrogen utilization; determination of digestion balance trials; systems for energy evaluation, schemes for protein values; water in relation to nutrition and water metabolism; requirements and their inter-relationship in nutrition; feed additives, proximate analysis; ration formulation; nutritional disorders.	2	C
ANS 515	Cattle, Sheep and Goat Production The beef and dairy industry: feeding and management of cattle, sheep and goats. Housing and equipment: calf rearing; growing and finishing operations; milk production, handling and processing. Animal judging: herd recording, castration and dehorning. Production and lactation in sheep and goats; Marketing milk, beef, goat and sheep products.	2	C
ANS 520	Animal Breeding and livestock Improvement Determination of genetic parameters; improvement of farm animals by the application of genetic principles; breeding systems, selection methods; sex determination; foundation stock in livestock production; Breeding and selection of beef and dairy cattle; record of performance tests, progeny.	2	C
ANS 521	Animal Products and Handling Preparation for slaughtering, evisceration and dressing percentage; care of carcass and its cuts; processing and care of hides, skin and wool; processing and storage of meat; milk processing and microbiology; and poultry products. Milk hygiene; Effect of cooking on meat and milk flavour. Post-harvest physiology of animal products; egg quality and grading; chemistry and nutritive value of meat and eggs. Poultry products; milk by-products-	2	R

	butter, cheese and whey.		
AGE 513	Agric-Business Management This course is designed to provide students with the theory and tools for solving major problems in the organization and operation of agribusiness. The areas of interest include enterprise selection, farm growth, organizing large scale-farms, communication, control, unique marketing arrangements, legal issues and tax strategies.	2	R
AES 512	Extension Programme Planning and Evaluation in Extension The planning process; principles & concepts of programme planning; steps in planning; concept of monitoring evaluation; and evaluation of approaches.	3	E
ANS 599	Project	4	C
	Total Units	29	

500 Level (CP & EB)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
HOR 510	Horticultural Crops Production History, botany, economic importance, production practices including greenhouse and nursery management, harvesting, processing and storage of selected tropical fruit, tree and vegetable crops. Hydroponics. Also principles of orchard management of tropical plantation crops.	2	R
HOR 511	Landscape Horticulture Plants for the landscape, landscape design, planning, symbols and drawings. Residential landscape, institutions, parks and sports grounds. Field trips.	2	R

AGB 512	Plant Disease Epidemiology and Control The development and spread of plant diseases, host-pathogen and environmental relationships and disease physiology; diseases of selected tropical crops; principles and methods of disease control and management, disease resistance and immunity.	2	R
AGB 523	Insect Morphology, Biology and Ecology	2	C

	Application of statistical techniques in the study of animal populations and plant communities; demographic techniques and population regulation; nature of plant communities, patterns of spatial distribution of plants.		
AGB 516	Applied Plant Numerology The bionomics, host-pathogen relationships, life cycles and economic effects of plant parasitic nematodes, principles and methods of control of nematodes attacking cash and food crop in the tropics.	2	C
AGB 517	Vertebrate Pests in Agriculture Distribution and abundance of vertebrate pest species in Nigeria, factors predisposing crops and stored produce to vertebrate pest attack, qualitative assessment of damage by vertebrate pests; management and control of vertebrate pests.	2	R
AGY 511	Crop Husbandry II (Cereal Legumes & Tuber) History, botany, economic importance, production practices including crop protection, harvesting, processing and storage of tropical tuber and fibre crops.	2	R
AGB 599	Special Project Directed experimental studies in specialized field of Entomology, Plant Physiology, Ecology, Toxicology, Weed Control, Physiopathology, Numerology, Photobiology or Genetics, with emphasis on problems of Agricultural importance, written report.	2	C
	Total Units	22	

500 Level (AGE & AES)

AGM 411	Workshop Practices	2	C
AGP 400	Report on Practical Training	6	C
HOR 510	Horticultural Crops Production History, botany, economic importance, production practices including greenhouse and nursery management, harvesting, processing and storage of selected tropical fruit, tree and vegetable crops. Hydroponics. Also principles of orchard management of tropical plantation crops.	2	R
AGE 510	Agricultural Production Economics Theory and principles of agricultural production with respect to resource use,	3	C

	resource and product/ enterprise combination; forms of production functions and their characteristics; response analysis – physical and economic relationships in agricultural production; the principles and measurement of resource productivity in traditional agriculture; farm-firm cost functions; farm-firm resource allocation using linear programming techniques; supply response analysis; data collection for production function estimation.		
AGE 511	Statistics & Research Methods The course is designed to introduce students to a number of simple quantitative techniques which are applicable to agricultural decision making. The course covers inventory, queuing, decision, game, Markov chain, mathematical programming and input-output models	3	C
AGE 516	Econometrics Basic assumptions in econometrics. Simple and multiple linear regression models in agricultural economics. Functional forms and major problems of single-equation models. Special models, including distributed lag models, and dummy variable models. Simultaneous equation models with particular emphasis on identification and estimation methods.	2	R
AES 510	Diffusion & Adoption of Innovation Definition of diffusion and adoption; processes of diffusion and adoption; adopter categories and diffusion curves.	3	C
AES 511	Agric Extension Adm. & Supervision Concept, theories, principles and guidelines of administration; organisation and supervision of agricultural extension services in Nigeria; staff recruitment selection, placement and supervision; assessment of extension work accomplishment.	2	C
AES 512	Extension Programme Planning & Evaluation The planning process; principles & concepts of programme planning; steps in planning; concept of monitoring evaluation; and evaluation of approaches.	3	C
AGE/AES	Special Project		

599			
	Total Units	26	

600 Level (Soil & Crop Science)

SOS 511	Soil Microbiology and Chemistry More detailed treatment of topics in SOS 311. Also soil organic matter, transformations of hydrocarbons and pesticides. Ecological and agricultural implications	2	R
SOS 514	Soil Fertility and Plant Nutrition More detailed treatment of topics in AGY 330. Soil nutrient dynamics; macro and micronutrient requirements of crops; soil pollution and bioremediation; soil fertility and organic waste management. Fertilizer use management.	2	R
AGM 510	Principles of Irrigation	2	R
AGY 513	Crop Husbandry III (Forage crop and Management) Adaptation and botany of native and introduced tropical forage plants; their establishment, production, utilization and maintenance in permanent and temporary pastures.	2	R
AGY 514	Weed Taxonomy, Biology & Control Weed problems in agricultural production. Weed classification, weed-crop associations. Management and control measures; types of measures and application. Use of chemicals; spraying equipment, their calibration and storage of chemicals.	2	R
AGY 520	Plant Breeding II: Applied Breeding Basic principles of breeding methods directed towards the improvement of sexually and asexually reproducing crop plants using conventional and biotechnological techniques.	2	R
HOR 512	Storage & Preservation and Post Harvest Physiology of Fruits Traditional methods of vegetable processing and storage, handling of fresh cut flowers, fresh fruits and vegetables in international storage. Fundamentals of storage, transportation pertaining to temperature and humidity control, protective treatment. Economic considerations.	2	R
AGY/SO S 599	Special Project	4	C

	Total Units	18	
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600 Level (Animal Science)

VMD 517	Animal Health and Diseases (see Veterinary Medicine Prospectus)	2	R
ANS 523	Pasture & Range Management Adaptation and botany of indigenous and introduced pasture and forage plants. Characteristics of grasses, legumes and shrubs. Establishment, production and seed production of pasture plants. The utilization and maintenance in permanent and temporary pastures. Range management; grazing systems; forage conservation and dry season feeds methods.	2	R
ANS 525	Artificial Insemination in Farm Animals The reproductive systems in male and female animals. Physiology of sperms and ovum. Endocrinology; reproduction. Egg production; genetic physiology; pregnancy and foetal development; fertility and sterility of farm animals. Role of AI in livestock production. Management of male donors; semen collection, evaluation, preservation and storage; artificial insemination techniques.	2	C
ANS 530	Animal Production Research Techniques Techniques and procedures in animal experimentation. Basic statistical designs in animal science research problems.	2	R
ABN 510	Chemistry and Nutritive values of Nigeria Feed and feeding Stuff Classification of foods, feeding stuffs and feed supplements; chemistry and nutritive values of succulent feeding stuffs. Concentrate feeds, cereals, legumes and oil seeds. Chemistry and nutritive values of some Nigerian grass and legume species. Storage quality control of feeding stuffs and feeds.	2	C
ANS 599	Project	4	C
	Total Units	24	

600 Level (CP & EB)

AGB 510	Applied Genetics Study of chromosome structure and function, chemical nature of the genetic materials and genetic control. Principles of applied genetics in plant and improvement.	2	C
AGB 511	Physiology of Crop Production & Improvement Water, light, temperature and gases as factors of the environment, growth phases and rhythms, assimilate partitioning in relation to yield determination and patterns; crop geometry and cultural manipulation; plant growth regulators in crop production, seed, root and tuber storage in terms of food quality and crop propagation.	2	R
AGB 515	Economic Entomology Principles and methods of insect control and pests management, biological control of insect pests; integrated pest management.	2	C
AGB 518	Pesticides and Pollutants in Agriculture Pesticides (insecticides, fungicides, foeticides and other); their chemistry misuses. Pollutants (ozone sulphur dioxide, fluorides, nitrates), misused fertilizers and by-products in agriculture.	2	R

AGB 519	Taxonomy of Insect, Pests & Diseases causing Micro-organisms	2	R
AGY 520	Plant Breeding II Basic principles of breeding methods directed towards the improvement of sexually and asexually reproducing crop plants using conventional and biotechnonological techniques.	2	R
AGY 514	Weed Taxonomy, Biology & Control Weed problems in agricultural production. Weed classification, weed-crop associations. Management and control measures; types of measures and application. Use of chemicals; spraying equipment, their calibration and storage of chemicals.	2	R
HOR 512	Post Harvest Physiology & Product Storage Traditional methods of vegetable processing and storage, handling of fresh	2	R

	cut flowers, fresh fruits and vegetables in international storage. Fundamentals of storage, transportation pertaining to temperature and humidity control, protective treatment. Economic considerations.		
AGB 599	Special Project	4	C
	Total Units	20	

600 Level (AGE & AES)

AGE 512	Agricultural Policy & Development Definitions and concepts of development; features of underdevelopment; measures/indicators of development. Development policy – objectives, goals. Basic needs; implementation, appraisal and evaluation of policies; formulation of agricultural and economic policies for sustainable development. Development plans and their uses.	2	C
AGE 513	Agricultural Business Management This course is designed to provide students with the theory and tools for solving major problems in the organization and operation of agribusiness. The areas of interest include enterprise selection, farm growth, organizing large scale-farms, communication, control, unique marketing arrangements, legal issues and tax strategies.	2	R
AGE 514	Rural Youth extension Programme This course prepares students for in-depth ability to critically appraise both rural and urban resource utilization. It examines the decision analysis tools used in project investments, particularly agricultural projects. It also deals with project formulation, preparation, implementation, evaluation. Principles of farm appraisal, land and other resource valuation. Problems and implications of farm resource appraisal. Presentation of case studies to illustrate basic principles.	2	R
RSS 513	Rural Problems & Public Policy Concept of rural development; rural development problems; social problems in rural areas of Nigeria; policy statements on rural development; strategies of implementing public policies on rural	2	R

	development		
RSS 516	Theory of Social Change Discussions and assessment of theories of social change and rural development; cultural evolution, diffusion, acculturation, and analysis of contemporary cases relating to human problems resulting from cultural change; including directed change.	2	C
AGE/AES 599	Special Project	4	C
	Total Units	14	

Summary		
200level	Status	Units
	Compulsory (10)	26
	Required (3)	7
	Total	33
300level	Status	Units
	Compulsory (4)	8
	Required (8)	23
	Total	31
400level	Status	Units
	Compulsory	7
	Required (8)	20
	Total	27
500level	Status	Units
	Compulsory (11)	24
600level (Animal Science)	Status	Units
	Compulsory (7)	20
	Required (3)	6
	Elective (1)	3
	Total	29
600level (CP & EB)	Status	Units
	Compulsory (5)	16
	Required (5)	10
	Total	26
600level (AGE & AES)	Status	Units
	Compulsory (8)	26
	Required (2)	4
	Total	30

600level (S & CS)	Status	Units
	Compulsory (4)	14
	Required (6)	12
	Total	26
600level (S & CS)	Status	Units
	Compulsory (1)	4
	Required (7)	14
	Total	18
600level (CP & EB)	Status	Units
	Compulsory (3)	8
	Required (6)	12
	Total	20
600level (Animal Science)	Status	Units
	Compulsory (6)	18
	Required (3)	6
	Total	24
600level (AGE & AES) Status		Units
	Compulsory (2)	6
	Required (4)	8
	Total	14
	Total No. of Units	290