**GES 105** 

## AGRICULTURE, RENEWABLE NATURAL RESOURCES, ANIMAL HUSBANDRY AND HEALTH

HL 30 U2

This course was designed for students from non-science based disciplines, specifically from the Faculties of Arts, Education, Law, Social Sciences as well as Environmental Design and Management. The course is facilitated by an array of experts from three faculties viz: Faculty of Agriculture, Faculty of Renewable Natural Resources and Faculty of Veterinary Medicine. The course is structured such that it introduces non science based undergraduates to various aspects of agricultural production (crop and soil management, livestock production, pest management and control); renewable natural resources (aquaculture and fishery management, forests, timber and non-timber forest resources, wildlife management and ecotourism) as well as animal husbandry and health (disease control, public health and safety). The course is a preparatory class for knowledge diversification and future entrepreneurship among students from the arts, education, environmental, social and legal sciences. Without a doubt, the student would receive firsthand training and knowledge that would better equip them for sustainable utilization of the natural resources as well as domesticated products.

#### Week 1: Agricultural Development Process and Land Use, Tenure and Conservation in Nigeria

Role of Agriculture in Nigeria's Economic Development, Recent **Trends** in Agricultural Performance Nigeria, in Agricultural Constraints to Development in Nigeria, Major Agricultural **Policies** Programme Efforts in Nigeria and their Impact, Overview of the Post SAP Policies. Recent Policy Direction to Enhance Agricultural Development, Strategies Increasing for Agricultural Production Nigeria, Agricultural Land Use, Tenure and Conservation in Nigeria.

#### **Week 2: Agricultural Extension Education**

Agricultural Meaning Scope and of Extension, Scope of Extension Education, **Functions** Extension of Education. of Objectives Extension Education. Principles of Agricultural Extension, Philosophies of Agricultural Extension, Communication Techniques in Extension,

The Extension Agent and the Rural Change Process, Importance of Rural Sociology to Agricultural Extension, The Rural Change Process.

#### Week 3: Agronomy as a Science

Components of Agronomy, Principles of Crop Production and Farming, Methods of sowing,

Farming **Systems** Crop in , Influence Production Climate and Environment on Crop Production, Major groups of crop plants, Classification of Crops, Soil as a Factor of Agricultural Production, Soil Profile, Plant Essential Nutrient Elements, Soil Management for Agricultural Production, Major Soil Types in Nigeria, Some New Concepts in Agronomy.

#### **Week 4: Livestock Production in the Tropics**

Chicken Breeds, Management and Nutrition , Swine Breeds, Management and Nutrition,

Terminologies used in pig production, Animal Feeds and Feedstuffs, What is Feed Processing? Reasons for Processing Feed, Processing Methods.

## Week 5: Pest Control Strategies for Optimal Crop Production

Origin of Agriculture, Definition of Pest, Pest control strategies, Physical methods of control,

Integrated pest management (IPM), Organic farming, Pests of selected agricultural crops, Fruits and vegetables.

#### Week 7: Tropical Forest: A Renewable Natural Resource

Tropical trees and forests, Global forest: distribution, formation and structure, Characteristics and types of tropical forests, Tropical rainforests, Tropical dry forests, Tropical savannas,

#### **Week 6: Fisheries Management**

Importance of Fishery to the Nigerian Economy, Fish Production in Nigeria, Types of Aquatic Environment, Cultivable fish species in Nigeria, Levels of aquacultural practices, **Problems** of Aquaculture Development in Nigeria. Fishing Gears, Methods of Fish Processing and Preservation.

## Week 8: The Role of Tropical Forest Resources in Sustainable Development

Tropical forest resources and poverty eradication, Tropical forest resources and food security,

Role of tropical forests in the provision of quality education for girls and women, Tropical forests supporting human health and wellbeing, Role of tropical forest in the provision of affordable, reliable and Nigeria's tropical forest, Socio economic importance of Nigerian forest, Tropical forest conservation, Challenges facing forest conservation in Nigeria, Agroforestry: a panacea to deforestation.

sustainable modern energy, Role of tropical forest in the promotion of equitable and sustainable economic growth; and decent work, Role of tropical forest in reduction of inequalities and promotion of peace, justice and strong institutions, Role of tropical forests in promoting responsible consumption, production and combating climate change, Role of tropical forests in the protection of life below water, and on earth, Partnership for the goals.

#### Week 9: Wildlife and Ecotourism Management

Biological diversity, Consumptive and nonconsumptive utilization Conservation of wildlife resources, Traditional conservation method, Challenges facing wildlife conservation in Nigeria Wildlife domestication, Ecotourism management, Ecotourism principles, Ecotourism stakeholders, Protected areas as sites for ecotourism, Benefits and costs of tourism in protected areas, Conflict types in protected areas as a result of ecotourism practice, Zoning, Ecotourism destinations in Nigeria.

# Week 11: Animal Health Management: Principles and Practice

Health in Nigeria,
Recognition of Signs of
Health and Ill Health among
Animals, Enhancing Animal
Health through Husbandry
Practice and Immunity, Health

Factors Affecting Animal

#### Week 10: Principles of Livestock, Fisheries Disease Prevention, Control and Public Health

Basic **Definitions** of Disease Terminologies, Disease Prevention. Control and Eradication Reasons for disease prevention and control, of Transmission Diseases, Disease prevention and control strategies, Common Ruminant Diseases: Causes, Prevention and Treatment.

Pest Control in Farm Animals and Stored Animal Products , Public Health Impact of Animal Diseases (Zoonoses).

#### Week 12: Practicals

Visit to Practical Year Training Programme research farms, Teaching and Research Farms and Veterinary Teaching Hospital fostered husbandry practices, Disease Prevention through Immunity, Animal Diseases and Vaccination.

### Week 13: Revision and Summary

Continuous Assessment, Tutorials and revisions