



## **SCHOOL OF AGRICULTURE, FOOD SYSTEMS AND NATURAL RESOURCES**

The School of Agriculture and Food system is aiming at studying and promoting the Agricultural science, focusing on strengthening the knowledge of modern agricultural technology. The studies cover a wide range of fields related to Agricultural Science and Technology with regard to crop and animal production and the quality and safety of food of plant and animal origin. Moreover, the Food system or Nutrition program, is to provide its students with all the necessary knowledge – basic and modern – that will allow them to have a pluralistic and effective approach on every nutrition issue the modern man has to deal with. While the Natural Resources Unit is to expose students to the natural resources available within the nation and its effective managements.

The Curriculum in agriculture is designed to prepare Students to acquire the employable skills for sustainability. It is a specialized agricultural program with options available for Students to gain the knowledge and skills essential for gainful employment in the fishery, horticulture and farming in general.

### **DEPARTMENT OF AGRICULTURE** **AGRICULTURE, AS**

The Associate of Science (AS) Agriculture degree is specifically designed to transfer to other colleges and universities. It contains a curriculum of basic first- and second-year courses which fulfill the general education requirements of most four-year institutions along with core Agriculture program requirements. The result is a well-rounded education that prepares students for the demands of Upper level courses and/or future employment needs.

Students planning to major in agriculture should consult the agriculture advisor concerning the specific courses to be taken. Completion of the recommended courses outlined below will meet the requirements for the Associate of Science degree

<b>1<sup>st</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
BIO 111	General Botany	4
BIO 113 -	General Zoology	4
ENG 101	English Composition I	3
MAT 114	College Algebra	3
AGR 115	Horticulture	3
	Total Semester Credit Units	17

<b>2<sup>nd</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
CHM 111	General Chemistry I	4
COM 115	Fundamentals of Public Speaking	3
ENG 102	English Composition II	3
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102–	History of Nigeria from 1800 to the present	3
AGR 119	Introductory Animal Science	3
	Total Semester Credit Units	16

<b>3<sup>rd</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
AGR 109	Computers in Agriculture	4
DRM 110	Theater Appreciation	3
ENG 102	English Composition II	3
AGR 208	Introduction to Agricultural Mechanics	3
AGR 107	Agronomy	3
HLA 109	Fitness for Life	1
	Total Semester Credit Units	17

<b>4<sup>th</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
PHL 101	Introduction to Philosophy	3
FRE 111	Beginning French, I	3
HIS 201	History of Lagos up to the 20th Century	3
AGR 217	Introduction to Agriculture Economics	3
PSY 101	Introduction to Psychology.	3
	Total Semester Credit Units	15

**BIO 111 - General Botany:**

**3 Credits**

Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi

**BIO 113 - General Zoology:****3 Credits**

Fundamental biological concepts relevant to animals, including systematic, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology.

**ENG 101 – English Composition I:****3 Credits**

This course is an intensive study and practice of the composition process from invention and researching to drafting, revising, and editing, both individually and collaboratively. The curriculum includes the teaching of effective rhetorical modes as well as audience, purpose, arrangement, style, and collateral readings. The instructional focus is on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

**.MAT 114 - College Algebra:****3 Credits**

Calculus I. Course provides an in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices.

**CHM 111 - General Chemistry I:****3 Credits**

Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports.

**ENG 102 – English Composition II:****3 Credits**

This course is a continuation of ENG 101 and an intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts along with being an introduction to literature. The course emphasizes effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of a sampling of literary, verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions.

**Pre-requisite:** Successful completion of ENG 101 with a grade of “C” or better

**COM 115 Fundamentals of Public Speaking****3 Credits**

Instruction and practice in researching, composing, and delivering formal and informal speeches in a variety of public contexts. Representative topics include: ethics in public speaking; listening; library research; outlining; delivery; writing in an oral style; evaluation of public address; and analyzing and adapting to audiences. The course emphasizes informative and persuasive speaking.

**AGR 109 - Agriculture Computer Applications:****4 Credits**

This course provides students who are majoring in agriculture with knowledge in the use of common software programs used throughout many aspects of the agriculture industry, including AgLogic, AgVance, FieldView, and Quickbooks. Students will also review software applications used by agricultural professionals for recordkeeping, presentations, and creating documents.

**AGR 115 – Horticulture:****4 Credits**

Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management.

**AGR 107 – Agronomy:****3 Credits**

Topics include basic soil physical and biological characteristics, resource conservation, irrigation, drainage, water quality, soil and tissue analysis and interpretation, fertilizers and other nutrient sources, soil pH and liming, pest identification, sampling, and control, cropping systems, planting practices, crop growth and development, harvest, storage, and managing production risk, among many others.

**AGR 119 - Introductory Animal Science:****3 Credits**

Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock. Laboratory activities will reinforce scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.

**DRM 110 - Theater Appreciation:****3 Credits**

A survey of theater including its history, dramatic works, stage techniques, production procedures, and relation to other art forms. Participation in productions may be required.

**HLA 109 -Fitness For Life (LW) :****1 Credit**

Wellness and healthy lifestyle concepts are taught with an emphasis on aerobic exercise and physical fitness. Lecture/ Lab format. Students will design and engage in a fitness program. Includes fitness appraisals and behavior change with emphasis on lifelong wellness.

**PSY 101 Introduction to Psychology****3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800** **3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present** **3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**PHL 101-Introduction to Philosophy** **3 Credits**

This course provides a general overview of the historical development and the major systems of philosophic thought, the nature of man, knowledge, morality, social and political theory, and the existence of God.

**FRE 111- Beginning French II:** **3 Credits**

Continued development of basic skills in listening, speaking, reading, and writing with greater emphasis on culture.

**SOC 101 - Introduction to Sociology:** **3 Credits**

The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity and deviance.

**AGR 217 - Introduction to Agriculture Economics:** **3 Credits**

An introduction to the economic problems of agriculture and the place of agriculture in the national economy. Basic economic concepts, principles, and fundamentals and their application to agricultural problems.

**HIS 201 History of Lagos up to the 20th Century**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbours; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are

expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

#### **AGR 208 - Introduction to Agricultural Mechanics:**

**4 Credits**

This course is an introduction to agricultural mechanization with emphasis on technical terminology, skill development and mathematical applications. The primary topic areas are farm power and machinery, electrification, structures and surveying. Students utilize current technology in agricultural mechanics.

### **SUSTAINABLE AGRICULTURE, AAS**

Associate of Applied Science in Sustainable Agriculture offers courses that focus on ecological farming, quality of life and farm profitability. The courses are designed to provide agricultural production and business skills training. Courses range from foundational principles in soil science to marketing and will provide hands on instruction at the campus student farm to cultivate a working knowledge of ecological farming practices and the seasonal processes.

1st Semester (Freshman)		
Course Code	Course Title	Credit Units/Hours
MAT 114	Contemporary Mathematics	3
BIO111	General Botany:	3
AGR 137	Introduction to Sustainable Agriculture	3
AGR 141	Horticulture with Lab	4
COM 115	Fundamentals of Public Speaking	3
	Total Semester Credit Units	16

2nd Semester (Freshman)		
Course Code	Course Title	Credit Units/Hours
ENG 101	English Composition	3
AGR 141	Introductory Animal Science	4
AGM 131	Introduction to Agribusiness	3
AGR 134	Forage and Pasture Management	3
AGR 231	Soil and Water Conservation Management	3
	Total Semester Credit Units	16

3 <sup>rd</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Units/Hours
HST 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
AGR 132	Marketing of Agricultural Products	3
AGR 241	Soil Science	4
AGR 133	Special Topics in Plant Protection – Integrated Pest Management	3
CIS-101	Introduction to Computers and Applications	3
	Total Semester Credit Units	16

4 <sup>th</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Units/Hours
PHL 101	Introduction to Philosophy	3
AGR 242	Small Scale Farming	4
AGE 135	Farm and Ranch Shop Skills I	3
AGM 256	Internship – Agricultural Business and Management	5
HIS 201	History of Lagos up to the 20th Century	3
	Total Semester Credit Units	18

**ENG 101 – English Composition I:**

**3 Credits**

This course is an intensive study and practice of the composition process from invention and researching to drafting, revising, and editing, both individually and collaboratively. The curriculum includes the teaching of effective rhetorical modes as well as audience, purpose, arrangement, style, and collateral readings. The instructional focus is on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

**MAT 114 - College Algebra:**

**3 Credits**

Calculus I. Course provides an in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices.

**BIO 111 - General Botany:**

**3 Credits**

Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi

**HIS 101 – History of Nigeria – from the Earliest Times to 1800**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**PHL 101-Introduction to Philosophy****3 Credits**

This course provides a general overview of the historical development and the major systems of philosophic thought, the nature of man, knowledge, morality, social and political theory, and the existence of God.

**CIS-101: Introduction to Computers and Applications****3 Credits**

Introduction to the fundamentals of computer use in business, including concepts of computer hardware, operating system and application software, elements of problem-solving. The course is designed to provide hands-on experience with the personal computer. Solutions to practical business problems are explored through the use of word processing, spreadsheet, and presentation software.

**COM 115 Fundamentals of Public Speaking****3 Credits**

Instruction and practice in researching, composing, and delivering formal and informal speeches in a variety of public contexts. Representative topics include: ethics in public speaking; listening; library research; outlining; delivery; writing in an oral style; evaluation of public address; and analyzing and adapting to audiences. The course emphasizes informative and persuasive speaking.

**AGR 137 Introduction to Sustainable Agriculture****3 Credits**

An introduction to the principles of sustainable agriculture through sustainable management practices to address current agriculture issues related to soil, tillage, irrigation, pests (insects, weeds, and diseases) and nutrients will be discussed. Emphasis on ecological concepts and principles to design and manage sustainable agro ecosystems. Also, we will examine the complex set of interactions between ecological, social, and economic components of an agro ecosystem.

**AGRI 141 Horticulture with Lab****4 Credits**

Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. Laboratory activities will reinforce the structure, growth, and development of horticultural plants. Examination of



environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management.

**AGR 141 Introductory Animal Science**

**4 Credits**

Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock. Laboratory activities will reinforce scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.

**AGM 131 Introduction to Agribusiness**

**3 Credits**

Introduction to agribusiness management, marketing, and sales in the free enterprise system. Topics include economic principles, finance, risk management, record keeping, budgeting, employee/employer responsibilities, communications, human relation skills, and agricultural career opportunities.

**AGR 134 Forage and Pasture Management**

**3 Credits**

Study of the production and management of forage crops and pastures including establishment, fertilization, weed control, grazing systems, hay, seed production, and harvesting.

**AGR 231 Soil and Water Conservation Management**

**3 Credits**

Study of physical and chemical soil deterioration and loss, water conservation, and principles for protection and maintenance of these resources. Topics include plant/water relationships, water conservation methods, basic terrace engineering principles, sediment loss, and land use plans.

**AGR 132 Marketing of Agricultural Products**

**3 Credits**

Study of operations in the movement of agricultural commodities from producer to consumer including the essential marketing functions of buying, selling, transporting, storing, financing, standardizing, pricing, and risk bearing.

**AGR 241 Soil Science**

**4 Credits**

Introduction to the physical, chemical, and biological properties of soils. Topics include the relationship between crops and soils, conservation of soil and water resources, and the economic use of fertilizer.

**AGR 139 Special Topics in Plant Protection – Integrated Pest Management 3 Credits**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

**AGR 242 Small Scale Farming****4 Credits**

Instruction in small farming techniques with emphasis on horticulture science including comprehensive and profitable guidelines. Topics include herbs, fruit, nut, and vegetable crops.

**AGE 131 Farm and Ranch Shop Skills 1****3 Credits**

Study and application of shop skills used in agricultural processes including arc welding, oxyacetylene cutting and welding, drawing and planning projects, tool maintenance, metal working, woodworking, plumbing, and concrete.

**AGM 256 Internship – Ag Business and Management****3 Credits**

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

**HIS 201 History of Lagos up to the 20th Century**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbours; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**AGRICULTURAL COMMUNICATIONS, AS**

The following transfer guide is designed to prepare students for transfer to a university to complete a baccalaureate degree in agricultural communications. The recommended courses meet all the requirements for the Associate of Science degree. Students may select courses from print and broadcast options. Students completing the recommended courses receive substantial hands-on experience in print journalism or broadcast journalism, as well as instruction in agricultural economics and communications.

<b>1st Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
AGR 109	Computers in Agriculture	4
AGRI217	Introduction to Agriculture Economics	3
ENG 101	English Composition I	3
BIO 111	General Biology	4
SPC 121	Business and Professional Communication	3
HLA 109	Fitness For Life	1
	Total Semester Credit Units	18

<b>2nd Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
ENG 102	English Composition II	3
COM 211 or	News Writing	3
COM 137	Video Production II	3
COM 230 or	Introduction to Public Relations	3
COM 136	Video Production I	3
HIST 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
MAT 114	College Algebra	3
	Total Semester Credit Units	15

<b>3rd Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
MAT 142	Statistical Methods	3
HIS 201	History of Lagos up to the 20th Century	3
PHL 101	Introduction to Philosophy	3
ENS 101	Introduction to Environmental Science	4
FRE 111	Beginning French, I	3
	Total Semester Credit Units	16

<b>4<sup>th</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
COM 118	Photography I	3
COM 205 or	Editing and Layout	3
COM 239	Writing for Radio, Television, and Film	3
DRM 110	Theater Appreciation	3
PSY 101 or	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3
	Total Semester Credit Units	12

**AGR 109 - Agriculture Computer Applications:****4 Credits**

This course provides students who are majoring in agriculture with knowledge in the use of common software programs used throughout many aspects of the agriculture industry, including AgLogic, AgVance, FieldView, and Quickbooks. Students will also review software applications used by agricultural professionals for recordkeeping, presentations, and creating documents.

**ENG 101 - English Composition I****3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**ENG 102 - English Composition II****3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

**BIO 111 - General Biology****4 Credits**

Provides an integrated study of plant and animal topics including the scientific method, introductory biological chemistry, cell structure, function and reproduction, nutrition, energy transformations such as photosynthesis and cellular respiration, the molecular basis of inheritance and the interaction of the organism and the environment. Lab Fee.

**SPC 121 - Business and Professional Communication:****3 Credits**

This course includes the basic principles of speech applied to communications in business and professional settings. The course emphasizes practice in the construction and delivery of various types of speaking situations and the application of interpersonal skills that occur in a business, organizational, or professional setting.

**FRE 111 - Beginning French II:****3 Credits**

Continued development of basic skills in listening, speaking, reading, and writing with greater emphasis on culture.

**COM 137 - Video Production II:****3 Credits**

Practical experience in the operation of studio and control room equipment, including both pre- and post- production needs.

**Pre-requisite:** Successful completion of COM 136 with a grade of "C" or better. Note: This course may be taken concurrently with COM 136

**COM 136 - Video Production I:****3 Credits**

Practical experience in the operation of studio and control room equipment, including both pre- and post- production.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**MAT 114 - College Algebra:****3 Credits**

Calculus I. Course provides an in-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices

**PSY 101      Introduction to Psychology**  
**Credits****3**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**SOC 101 - Introduction to Sociology:****3 Credits**

The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity and deviance

**DRM 110 - Theater Appreciation:****3 Credits**

A survey of theater including its history, dramatic works, stage techniques, production procedures, and relation to other art forms. Participation in productions may be required.

**MAT 142 - Statistical Methods:****3 Credits**

Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing.

**PHL 101 - Introduction to Philosophy :****3 Credits**

This course provides a general overview of the historical development and the major systems of philosophic thought, the nature of man, knowledge, morality, social and political theory, and the existence of God.

**COM 118 - Photography I :****3 Credits**

Introduction to the basics of photography, including techniques and equipment operation.

**COM 205 - Editing and Layout:****3 Credits**

This course is a study of the editing and layout processes with emphasis on accuracy and fairness. Using the newest computer software, students will learn and apply the principles of design.

**COM 239 - Writing for Radio, Television, and Film:****3 Credits**

This course provides an introduction to basic script formats, terminology, and writing techniques for radio, television, and film. This course is a study of the techniques used in writing commercials, public service announcements, promos, news, documentary and fictional materials.

**HIS 201 History of Lagos up to the 20th Century**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbours; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**AGR 217 - Introduction to Agriculture Economics:****3 Credits**

An introduction to the economic problems of agriculture and the place of agriculture in the national economy. Basic economic concepts, principles, and fundamentals and their application to agricultural problems.

**COM 211 - News Writing:****3 Credits**

This course teaches the fundamentals of writing news for the mass media. It includes instruction in methods and techniques for gathering, processing and delivering news in a professional manner.

**COM 230 - Introduction to Public Relations:****3 Credits**

This course is an exploration of the history and development of public relations. The course is a presentation of the theory behind and the process of public relations, including the planning, implementation and evaluation of PR campaigns.

### **AGRICULTURAL BUSINESS, AS**

Students completing the Associate in Science in Agriculture Business for Transfer in NAAC will be able to seamlessly transfer in the CSU system to pursue a baccalaureate degree in Agricultural Business. Such students will have an introductory foundation for the field of Agriculture Business through the study of economics, accounting and sales. Students will acquire skills and abilities in agriculture economics, use of agriculture accounting software, sales and marketing of products, management and computer skills. This degree is specifically intended to facilitate a seamless transfer to the CSU system, but it also provides the preparation necessary for immediate employment in retail sales, crop management, bookkeeping, and entry-level finance.

<b>1<sup>st</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
MAT 124	Mathematics for Business and Social Sciences	3
AGR 119	Introductory Animal Science	3
ENG 101	English Composition I	3
BIO 111	General Biology	4
CHM 111	General Chemistry I	3
	Total Semester Credit Units	16
<b>2<sup>nd</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
ENG 102	English Composition II	3
AGR 115 or	Horticulture	3
AGR 107	Agronomy	3
HIS 101 -	United States History I	3
AGR 217	Introduction to Agriculture Economics	3
MAT 125 or	Calculus for Business and Social Sciences	3
MAT 142	Statistical Methods	3
	Total Semester Credit Units	15

<b>3<sup>rd</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
AGR 125	Marketing of Agricultural Products	3
HIS 102	United States History II	3
AGR 109	Computers in Agriculture	3
ART 101 -	Art Appreciation	3
HLA 109	Fitness for Life	1
SPC 115	Public Speaking	3
	Total Semester Credit Units	16

<b>4<sup>th</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
ACC 202	Principles of Managerial Accounting	3
GOV 205	Federal Government	3
ENG 211	Technical Writing	3
AGR 221	Livestock Evaluation I	3
PHL 101	Introduction to Philosophy	3
	Total Semester Credit Units	15

### **ENG 101 - English Composition I**

**3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

### **ENG 102 - English Composition II**

**3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

### **AGR 119 - Introductory Animal Science:**

**3 Credits**

Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock. Laboratory activities will reinforce scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.

### **BIO 111 - General Biology**

**4 Credits**

Provides an integrated study of plant and animal topics including the scientific method, introductory biological chemistry, cell structure, function and reproduction, nutrition, energy transformations such as photosynthesis and cellular respiration, the molecular basis of inheritance and the interaction of the organism and the environment. Lab Fee.

### **MAT 124 - Mathematics for Business and Social Sciences:**

**3 Credits**

The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value.



**CHM 111 - General Chemistry I:****3 Credits**

Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Basic laboratory experiments supporting theoretical principles presented in lecture; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports.

**AGR 217 - Introduction to Agriculture Economics:****3 Credits**

An introduction to the economic problems of agriculture and the place of agriculture in the national economy. Basic economic concepts, principles, and fundamentals and their application to agricultural problems.

**AGR 115 – Horticulture:****4 Credits**

Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management.

**AGR 107- Agronomy:****3 Credits**

Topics include basic soil physical and biological characteristics, resource conservation, irrigation, drainage, water quality, soil and tissue analysis and interpretation, fertilizers and other nutrient sources, soil pH and liming, pest identification, sampling, and control, cropping systems, planting practices, crop growth and development, harvest, storage, and managing production risk, among many others.

**MAT 125 - Calculus for Business and Social Sciences:****3 Credits**

This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences.

**Pre-requisite:** Successful completion of MAT 124 with a grade of “C” or better.

**MAT 142 - Elementary Statistical Methods:****3 Credits**

Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**AGR 125 - Marketing of Agricultural Products:****3 Credits**

Essential marketing functions in the movement of agricultural commodities and products from producer to consumer.

**AGR 109 - Agriculture Computer Applications:****4 Credits**

This course provides students who are majoring in agriculture with knowledge in the use of common software programs used throughout many aspects of the agriculture industry, including AgLogic, AgVance, FieldView, and Quickbooks. Students will also review software applications used by agricultural professionals for recordkeeping, presentations, and creating documents.

**SPC 115 - Public Speaking:****3 Credits**

This course is an application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations.

**PHL 101 - Introduction to Philosophy:****3 Credits**

This course provides a general overview of the historical development and the major systems of philosophic thought, the nature of man, knowledge, morality, social and political theory, and the existence of God.

**ART 101 - Art Appreciation:****3 Credits**

A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts.

**HLA 109 - Fitness for Life (LW):****1 Credit**

Wellness and healthy lifestyle concepts are taught with an emphasis on aerobic exercise and physical fitness. Lecture/ Lab format. Students will design and engage in a fitness program. Includes fitness appraisals and behavior change with emphasis on lifelong wellness.

**ACC 202 - Principles of Managerial Accounting:****3 Credits**

This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation.

**Pre-requisite:** Successful completion of ACC 201 with a grade of "C" or better.

**HIS 201 History of Lagos up to the 20th Century**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbours; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**ENG 211 - Technical Writing:****3 Credits**

This course includes preparation of oral and written reports in scientific and technical fields.

**Pre-requisite:** Successful completion of ENG 101 and ENG 102 with a grade of "C" or better.

**AGR 221 - Livestock Evaluation I:****3 Credits**

This course focuses on the evaluation and grading of market cattle, swine, sheep, and goats and their carcasses and wholesale cuts. Emphasis will be placed on value determination. Selection and evaluation of breeding cattle, sheep, swine, and goats with emphasis on economically important traits.

**ABM 212 - Agri-Business Internship:****6 Credits**

Students are placed in an internship according to their career objectives in selected agri-businesses for a minimum of 225 hours. This allows students to experience actual working conditions and on-the-job training. Students also develop relationships that often lead to future employment.

**Pre-requisite** 15 hours of AGR, ABM and/or HRT courses. Students must have permission of the instructor before enrolling in this course.

### **AGRICULTURAL SALES AND SERVICE, AAS.**

The Sales and Service curriculum is designed to prepare students to work in the agricultural supply and service industry it is also designed for transfer to a 4 year college for an award of a bachelor's degree. It provides a sound academic foundation with emphasis on sales/merchandising, economics, business management, information management, precision agriculture, agronomy, animal science, human relations, and general education. Two eight-week internship experiences are required. Staff can advise you as to the best academic path for transfer.

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit /Hours
AGA - 111	Fundamentals of Soil Science	3
AGB - 133	Introduction to Ag Business	3
AGS - 109	Animal Science I	3
AGS - 110	Animal Science I Lab	1
BCA - 215	Computer Business Applications	3
ENG - 105	Eng. Composition I	3
	Total Semester Credit Units	16

2 <sup>nd</sup> Semester (Freshman)		
Course Code	Course Title	Credit Unit /Hours
ACC - 111	Introduction to Accounting	3
AGA - 114	Principles of Agronomy	3
AGS - 209	Animal Science II	3
AGS - 210	Animal Science II Lab	1
BIO - 151	General BiologyII	3
BIO - 151	General Biology II Lab	1
MAT 170	Calculus I	4
	Total Semester Credit Units	18

1st year (Summer)		
Course Code	Course Title	Credit Unit /Hours
AGA - 116	Principles of Crop Production	3
AGP - 211	Precision Agriculture	2
BUS - 130	Introduction to Entrepreneurship	3
	Total Semester Credit Units	8

3 <sup>rd</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit /Hours
AGA - 211	Soils and Crop Management	2
AGB - 211	Commodity Marketing	3
AGB - 290	Agriculture Internship	4
AGS - 201	Swine Production	3
AGC - 190	Skills and Safety in Agriculture	1
AGS - 221	Animal Technologies	1
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
	Total Semester Credit Units	17

4th Semester (Sophomore)		
Course Code	Course Title	Credit Unit /Hours
AGA - 212	Site-Specific Crop Management	2
AGB - 212	Farm Business Management	3
AGB - 214	Salesmanship and Advertising	2
BUS - 161	Human Relations	3
AGS - 217	Animal Nutrition	2
HIS 201	History of Lagos up to the 20th Century	3
	Total Semester Credit Units	15

### **HIS 101 – History of Nigeria – from the Earliest Times to 1800**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

### **HIS 102– History of Nigeria from 1800 to the present**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second

Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**AGA - 154 Fundamentals of Soil Science**

**3 Credits**

Introduction to the physical, chemical, and biological properties of soils with an emphasis on the functions of the soil as a medium to support plant life. A review of the sources and functions of major and minor plant elements, fertilizers and their properties, soil acidity, liming materials, and soil conservation.

**AGB - 133 Introduction to Ag Business**

**3 Credits**

This course applies basic economic concepts, principles, and practices reflected in agriculture. Students will also reflect on the major components of an agricultural business organization, and the economic fundamentals involved in organizing, operating, and managing an agricultural business.

**AGS - 109 Animal Science I**

**3 Credits**

To introduce students to the various species and breeds of domestic animals and to create an understanding of the principles of food animal production, product marketing and issues confronting the animal industry.

**AGS - 110 Animal Science I Lab**

**1 Credit**

This course is designed to give students hands-on, practical, experiences in livestock production and animal science, incorporating animal husbandry, technology, problem solving, and basic principles of current management practices in the animal agricultural industry.

Corequisite: AGS 109

**BCA - 215 Computer Business Applications**

**3 Credits**

This course will emphasize business applications of computer software. Students will complete business problems using word processing, electronic spreadsheet, and database management software. Students will also be exposed to Windows operating systems, presentation software, and the Internet.

**ENG - 105 Composition I**

**3 Credits**

The course develops skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use computers and other technology.

**ACC - 111 Introduction to Accounting**

**3 Credits**

This course provides the student with a basic understanding of the accounting cycle and basic accounting rules along with the process of collecting and using financial information in a business.

**AGA - 114 Principles of Agronomy****3 Credits**

A foundation course in Agronomy, this course addresses areas including plant anatomy, plant classification and ID, crop physiology, climate, weeds, insects, and crop diseases.

**AGS - 209 Animal Science II****3 Credits**

This course applies advanced principles of livestock production and management. Areas of emphasis include: modern livestock facilities and animal needs, animal breeding and genetics, selection, and the physiology of egg laying and lactation and reproduction.

**AGS - 210 Animal Science II Lab****1 Credit**

This course is designed to give students a deeper understanding and in-depth look at livestock production and animal science. Incorporating animal husbandry, technology, problem solving, and basic principles of current management practices in the animal agricultural industry in a hands-on practical approach.

**BIO 151 General Biology II****3 Credits**

The course introduces students to the fundamentals of organismal biology. Topics include the nature of science, heredity, evolution, biodiversity, physiology, and ecology. Co-requisite: BIO 151L - General Biology II Lab. Fall.

**BIO 151L General Biology I Lab****1 Credit**

Laboratory experience that illustrates principles and concepts introduced in BIO 151 - General Biology II. Co-requisite: BIO 151 -

**MAT 170 Calculus I****4 Credits**

This is the first course in the calculus sequence. It covers algebraic and transcendental functions; rate of change; limits; continuity; differentiation of algebraic, trigonometric, exponential, logarithmic, and hyperbolic functions; differentials; applications of differentiation; definite and indefinite integrals; area between curves; volumes; and other applications of integration, indeterminate forms, and L'Hôpital's rule.

**AGA – 116 Principles of Crop Production****3 Credits**

Production and management practices for corn, soybeans, small grains, and forage crops common to Nigerian Agriculture.

**BUS - 130 Introduction to Entrepreneurship****3 Credits**

This course introduces the concept of Entrepreneurship beginning with identifying characteristics of the Entrepreneur, evaluating opportunities, feasibility, financing, and planning for success. Students will also understand the need for a contingency plan as well as an exit strategy.

**AGP - 211 Precision Agriculture****2 Credits**

This course provides an overview of precision farming concepts and the tools of precision farming (Global Positioning Systems, Geographic Information Systems, and Variable Rate

Technology). Students will be introduced to the use of these tools within the processes of precision farming system. This course provides hands-on activities in the use of these tools and discusses economic and environmental benefits.

**Pre-requisite:** Successful completion of AGA – 114 with a grade of “C” or better

### **HIS 201 History of Lagos up to the 20th Century**

**2 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

### **AGA - 211 Soils and Crop Management.**

**2 Credits**

Fundamentals of Soil Science or equivalent or instructor permission.

Advanced plant nutrition, soil fertility, and nutrient management.

**Pre-requisite:** Successful completion of AGA - 154 with a grade of “C” or better

### **AGB- 211 Commodity Marketing**

**3 Credits**

Elements of producer marketing of major Midwest crops with emphasis on formulating marketing goals and plans. Marketing tools, futures and option markets, speculation, hedging, and risk management.

### **AGB - 290 Agriculture Internship**

**4 Credits**

Agriculture Internships are high impact educational experiences offered by North Iowa Area Community College to prepare students for employment and advancement potential within the agricultural industry. Under the supervision of the college, faculty, and employment supervisor, internships allow the student to apply theoretical principles learned in the classroom to every day on-the-job practices in his or her field of study. Students majoring in Agriculture Operations/Management and Agriculture Sales/Service are required to complete two professional internship experiences before graduation.

### **AGS - 201 Swine Production**

**3 Credits**

This course applies advanced principles of swine production and management. Areas of emphasis include: Industry Overviews, Life Cycles, Integrated Swine Production, Swine Marketing, Swine Reproduction, and Swine Health. Students will have the opportunity to apply skills learned in the classroom to the swine operation at the NIACC Farm Lab.

### **AGC - 190 Skills and Safety in Agriculture**

**1 Credit**

This course is designed to acquaint the student with the proper personal and shop safety procedures needed to function in an agricultural lab setting. In addition to the safety, students will also receive instruction on first aid in an emergency situation, as well as computing skills needed to be successful in an agricultural setting.



**AGS – 221 Animal Technologies****1 Credit**

This course is designed for students seeking an Associate in Science Degree in Agriculture. Students will be involved with techniques and technologies that enable better management, decision making, and improved economic efficiency of agricultural operations. Included in the course are Animal Reproductive Technologies, Embryo Transfer, Estrus and Ovulation Synchronization, Electronic Heat Detection, Quality Assurance Evaluation, and Food Safety.

**AGA – 212 Site-Specific Crop Management****2 Credits.**

This course covers advanced soil and water management.

**Pre-requisite:** Successful completion of AGA - 154 with a grade of “C” or better

**AGB - 212 Farm Business Management****3 Credits**

Principles of Farm Management. Emphasis is given to decision making, implementation, and control in farm operations using economic principles, farm records, enterprise analysis, financial reports, and investment analysis. This course also provides students the opportunity to develop an understanding of real estate value and the application of the appraisal process to estimating the market value of agricultural and rural real estate.

**AGB - 214 Salesmanship and Advertising****2 Credits**

This course outlines the principles and strategies of agricultural selling and advertising. Various sales methods will be discussed and students will practice these methods in presentations and mock sales scenarios. Students will utilize the farm as a way to obtain real world experience, selling and advertising agricultural goods and services.

**AGB – 290 Agriculture Internship****4 Credits**

Agriculture Internships are high impact educational experiences offered by North Iowa Area Community College to prepare students for employment and advancement potential within the agricultural industry. Under the supervision of the college, faculty, and employment supervisor, internships allow the student to apply theoretical principles learned in the classroom to every day on-the-job practices in his or her field of study. Students majoring in Agriculture Operations/Management and Agriculture Sales/Service are required to complete two professional internship experiences before graduation.

**BUS - 161 Human Relations****3 Credits**

Human Relations is a course designed to improve the student’s ability to function in the workplace. This class will work on increasing the student’s self-awareness and improving their ability to get along with customers, coworkers, and supervisors.

**AGS - 217 Animal Nutrition****2 Credits**

Fundamentals of nutrition that deal with monogastric and ruminant animals. Materials covered will enable students to identify sources, composition, and functions of various

feedstuffs. Students will learn to evaluate and make feeding recommendations based upon varying livestock, environment, and management conditions.

### **AGRICULTURE, AAS –Livestock Production**

The Associate of Applied Science degree in Livestock Production provides students with a broad range of skills needed in the livestock industry including management, breeding, selection, nutrition, health, and basic business skills. The program blends scientific and business principles with hands on practical experiences.

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit /Hours
ASC 100	Animal Science	3
CIS 118	Intro to PC Applications	3
ENG 121	English Composition I	3
AGR 260	World Interdependence GT -SS3	3
AGP 146	Artificial Insemination Management	2
AGP 147	Practical Cattle Reproduction	2
AGP 148	Cattle Reproduction Lab	1
	Total Semester Credit Units	17

2 <sup>nd</sup> Semester (Freshman)		
Course Code	Course Title	Credit Unit /Hours
MAT 170	Calculus I	4
AGP 215	Animal Health	3
ASC 250	Live Animal and Carcass Evaluation	3
ASC 288	Livestock Practicum	2
ACC 125	Computerized Accounting	3
MAN 128	Human Relations-Organization	3
	Total Semester Credit Units	18

3 <sup>rd</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit /Hours
COM 115	Public Speaking	3
AGE 205	Farm/Ranch Management	3
RAM 205	Range Management	3
AGP 280	Production Ag Internship	1
AGP 247	Production Cattle Feeding	3
AME 105	Ag Mechanics	2
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102–	History of Nigeria from 1800 to the present	3
	Total Semester Credit Units	18

4 <sup>th</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit /Hours
AGE 208	Ag Finance	3
AGR 224	Integrated Ranch Management	3
ASC 225	Feeds and Feeding	4
AGE 210	Ag Marketing	3
HIS 201	History of Lagos up to the 20th Century	3
	Total Semester Credit Units	16

### **ASC 100 - Animal Sciences**

**3 Credits**

Studies the fundamentals of livestock production pertaining to principles of breeding, genetics, nutrition, health, and physiology of beef, sheep, swine, dairy, and horses. Focuses on the Animal Science Industry in general and each species industry in regard to history, current situation, and future direction.

### **CIS 118 - Intro to PC Applications**

**3 Credits**

Introduces basic computer terminology, file management, and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases, and presentation graphics. Includes the use of a web browser to access the Internet. Three credits.

### **ENG 121 - English Composition I**

**3 Credits**

Emphasizes the planning, writing, and revising of compositions, including the development of critical and logical thinking skills. This course introduces students to research strategies and skills. This course includes a minimum of five compositions that stress purpose, audience, and persuasive/argumentative writing.

### **AGP 146 Artificial Insemination Management**

**2 Credits**

This short course offered each year emphasizes the anatomy of the cow and artificial insemination procedures. Emphasis is placed on semen handling, breeding management and techniques.

### **HIS 101 – History of Nigeria – from the Earliest Times to 1800**

**2 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

### **HIS 102– History of Nigeria from 1800 to the present**

**2 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure

of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**AGP 147 Practical Cattle Reproduction**

**2 Credits**

Studies the fundamentals of cattle reproduction. Principles covered include: nutrition, breeding, system management, physiology of the reproductive tract, hormone function, fertilization, stages of pregnancy, and overall reproductive management of the cow herd. Emphasizes economic decision making and practical experience. Covers practical applications in reproductive management that may include: reproductive tract scoring, pelvic measuring, body condition scoring, artificial insemination and palpating cows.

**AGP 148 Cattle Reproduction Lab**

**1 Credit**

Development of skills necessary for reproductive management of cattle in Beef/Dairy operations. Covers the practical application of reproductive management techniques and practices utilized in the cattle industry.

**MAT 170 Calculus I**

**4 Credits**

This is the first course in the calculus sequence. It covers algebraic and transcendental functions; rate of change; limits; continuity; differentiation of algebraic, trigonometric, exponential, logarithmic, and hyperbolic functions; differentials; applications of differentiation; definite and indefinite integrals; area between curves; volumes; and other applications of integration, indeterminate forms, and L'Hôpital's rule.

**ACC 125 Computerized Accounting**

**3 Credits**

Computerized Accounting emphasizes the application of computers to sound accounting practices. Students will learn to direct the computer functions to accomplish the various steps learned in accounting principles in accordance with generally accepted procedures.

**MAN 128 Human Relations-Organization**

**3 Credits**

This course is designed to aid future employees and employers to understand and utilize human relations concepts as they apply to the business environment. It will cover such areas as morale, personal efficiency, leadership, personality, motivation, and communication.

**COM 115 - Public Speaking**

**3 Credits**

Combines the basic theory of speech communication with public speech performance skills. Emphasis is on speech delivery, preparation, organization, support, and audience analysis.

**AME 125 - Agricultural Machinery**

**3 Credits**

Emphasizes the safe operation, construction, purpose, maintenance and adjustment of farm machinery.

**AGE 205 - Farm and Ranch Management****3 Credits**

Provides students with practical experience in applying principles of economics, business, marketing and finance to the management of a farm/ranch operation. Three credits.

**RAM 205 Range Management****3 Credits**

The course emphasizes the principles and practices of grass management to be utilized for the maximum production from range and pasture land in Kansas. Field trips will be made for grass identification and management observations.

**AGP 215 Animal Health****3Credits**

The aim of the course is to provide students with a general knowledge on health protection and safeguard of the wellbeing of animals. Additionally, veterinary care such as preventive medicine, reproduction management, surveillance, eradication and monitory programs on animal diseases and treatment of animal waste will be treated. About half of the students' time will be spent at field studies involving cattle, sheep goat poultry and swine, as well as companion animals.

Field studies will provide students with hands-on experience and problem-solving skills that will assist them while developing careers related to animal health.

**ASC 250 - Live Animal/Carcass Evaluation****3Credits**

Explores meat carcass evaluation and the related yield and quality grading system. Emphasizes selection of breeding stock based on performance data. Covers comparative selection, grading, and judging of market and breeding classes of livestock based on knowledge of phenotype, performance, information, and/or carcass merit.

**Pre-requisite:** Successful completion of ASC 100 with a grade of "C" or better

**AGR 260 - World Interdep/Population/Food****3 Credits**

Covers the study of world population and food production and distribution. Problems and opportunities concerning population and food are discussed in a global context.

**ASC 288 - Livestock Practicum****2Credits**

Provides experiential learning with beef cattle, dairy cattle, swine and sheep.

**Pre-requisite:** Successful completion of ASC 100 with a grade of "C" or better

**HIS 201 History of Lagos up to the 20th Century****2Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**AGP 280 - Production Ag Internship****1 Credit**

May be waived if the student exhibits substantial knowledge and understanding of production agriculture in his first term of OJT and through written documentation of work experience at the time of waiver application. Zero to twelve credits.

**ASC 225 - Feeds and Feeding****4 Credits**

Focuses on the basic nutrients, common feeds and feed additives, anatomy of digestive systems, and basic feeding practices for beef, sheep, and dairy. The lab portion of the class is devoted to calculating and balancing rations to fulfill nutrient requirements for farm animals for growth, finishing, reproduction, lactation, work, and wool production. Explores least cost ration balancing on the computer.

**Pre-requisite:** Successful completion of ASC 100 with a grade of “C” or better

**AGE 208 - Agricultural Finance****3 Credits**

Emphasizes principles of finance and their application to agriculture and agribusiness, including the time value of money, net present value analysis, interest, credit lending institutions, financial statements and financial ratios. Three credits.

**AGR 224 Integrated Ranch Management****2 Credits**

This course is intended for people who will advise or manage farm and ranch operations. It covers the application of all phases of management (including marketing and finance) to crop and livestock production practices.

**AGE 210 - Agriculture Marketing****3 Credits**

Studies the agricultural marketing system and methods of marketing crops and livestock. Emphasizes hedging with futures options.

**HORTICULTURE TECHNOLOGY, AAS**

A program that focuses on the general production and management of cultivated plant, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with the horticulture services; and the basic scientific principles needed to understand plants and their management and care. Graduates should qualify for employment in a variety of positions associated with nurseries, garden centers, greenhouses, landscape operations, governmental agencies/ parks, golf courses, sports complexes, highway, vegetation, turf maintenance companies, and private and public gardens.

<b>1<sup>st</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
ENG 101	Composition I	4
HOR 100	Introduction to Horticulture	3
HORT 151	Herbaceous Plants	3
HORT 141	Woody Plants	3
HOT 150	Landscape Installation	2
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
	Total Semester Credit Units	18

<b>2<sup>nd</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
BMT 120	Introduction to Business	3
COM 131	-Interpersonal Communication	3
HOR 121	Plant Biology	3
HOR 124	Plant Propagation	3
HORT 251	Fruit and Vegetable Crops for Local Markets	3
CIS 110	Introduction to Computers	3
	Total Semester Credit Units	18

<b>3<sup>rd</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
HOR 123	Soil Science	3
HOR 244	Landscape Management	2
HOT 125	Pest Management	3
HOR 205	Landscape Design Principles	4
GEO 102	Physical Geography	3
HIS 201	History of Lagos up to the 20th Century	3
	Total Semester Credit Units	15

<b>4<sup>th</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
HOR 246	Horticulture Equipment and Technology	2
HOT 225	Horticulture Operations	3
HOT 150	Landscape Installation	3
HUM 121	Introduction to the Humanities: Europe and the U.S.	4
PSY 101	Introduction to Psychology	3
HOT 127	Sustainable Horticulture	3
	Total Semester Credit Units	18

**ENG 101 - English Composition I**

**3Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**CIS 110 - Introduction to Computers**

**3 Credits**

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

**HOT 100 - Introduction to Horticulture**

**3 Credits**

This course will introduce students to horticulture and the horticulture industry. Topics covered include the plant kingdom, basic plant identification, soils and fertilizers, greenhouse operations, the nursery industry, landscape design and installation, landscape maintenance and turf, interior foliage plants, and fruit and vegetable growing.

**HOT 181 - Horticulture Internship I**

**3 Credits**

The Horticulture Internship is designed to enhance the student's learning by putting to use the knowledge and skills that the student has already attained and then building on them. Students will get experience working in the field and will be evaluated by employers and the instructor on a variety of skills.

**PSY101 Introduction to Psychology**

**3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**HUM 121 - Introduction to the Humanities: Europe and the U.S.**

**4 Credits**

This course concentrates on the creative works from the areas of Europe and the United States. Topics covered include visual art, music, theatre, film, literature, mythology, philosophy and religion. This broad survey focuses on the value of the arts in understanding human experience and popular culture. The artistic contributions from other cultural areas are considered as points of contrast.

**MAT 102 – Statistics**

**4 Credits**

This course is an algebra-based statistics course that introduces the basic concepts involved in collecting, analyzing, and interpreting data. Topics include graphs, frequency distributions, measures of central tendency and variation, probability, probability distributions, expected value, sampling distributions, normal distribution, confidence intervals, hypothesis testing for one and two population means and proportions, chi square, linear regression, and correlation.



**PHL 103 – Ethics****3 Credits**

This course will examine questions of what is morally right and wrong. Theoretical questions such as “what makes an action morally right or wrong?”, “what type of moral character should a person have?” and “are there correct answers to moral questions?” will be studied. Included in the course will be the study of ethical theory and the application of ethical theory to modern moral problems.

**HOT 127 - Sustainable Horticulture****3 Credits**

This course focuses on ways to effectively employ environmentally friendly production methods in commercial horticulture as well as in the maintenance of public and private spaces. Students will apply organic best practices in plant and crop production in the campus greenhouses. The course covers current organic certification processes, the use of bio-controls for pest management, and sustainable methods to promote soil and plant health.

**HOT 150 - Landscape Installation****3 Credits**

This course focuses on the practice of sustainable site development, installation of landscape planting, and soil improvement methods. Topics include the selection and installation of a variety of edging, mulches, water features, and irrigation systems. The course also introduces retaining wall systems and turf installation.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**HOT 121 - Plant Biology****3 Credits**

This course introduces students to the structure and function of a wide variety of plants. Students will study plant classification and identification principles. Plant functions covered include activities of the plant cell, photosynthesis, respiration, transpiration, plant genetics, and breeding.

### **HOT 124 - Plant Propagation**

**3 Credits**

This course covers current commercial methods of propagating annual and perennial herbaceous plants, woody plants, and tropical indoor plants. Methods covered include propagation by seed, division, cuttings, layering, grafting, and tissue culture. Students will propagate a wide variety of plants and in many cases bring them to the final production stage.

### **HOT 123 - Soil Science**

**3 Credits**

In this course, students will study soil profiles, soils of the world, nutrients and fertilizers, soil testing, soils for container growing and greenhouse potting, soil-working equipment, and hydroponics.

### **HOT 125 - Pest Management**

**3 Credits**

Pests can cause a great deal of aesthetic and economic damage to plants. Students will identify pests that affect the quality and production of horticultural plants and examine ways to manage the pests by chemical means or natural methods. Students will examine weeds, diseases, insects and other pests. This course will help prepare students for the state commercial pesticide applicator examination.

### **HOT 151 - Herbaceous Plants**

**3 Credits**

In this course, students will identify and determine the growing requirements for 150 herbaceous plants. The herbaceous plants covered include annual, biennial, and perennial ornamental plants. Students will study light, soil, and water requirements as well as bloom time, pest problems, and suggested varieties of herbaceous plants.

### **HOT 141 - Woody Plants**

**3 Credits**

Woody plants make up the backbone of the landscape. In this course, students will identify over 100 varieties of woody plants including the common and botanical names, site preference, landscape use, and special features of each.

### **BMT 120 - Introduction to Business**

**3 Credits**

This course is a study of contemporary business concepts in the areas of economics, business formation, management, marketing, accounting, finance and the future scope of business. The emphasis of the course includes learning business terminology and understanding applications of concepts in the business world. The perspective includes business interrelationships within the economic, legal, technological, competitive, social, and global environments.

**COM 131 - Interpersonal Communication****3 Credits**

This course focuses on basic communication theories and concepts, and the practice of interpersonal communication skills. Topics include the self and others as communicators, verbal and nonverbal messages, listening, conflict management, self-disclosure, and the dynamics of human relationships. The course content applies to everyday communication situations at home and on the job.

**Pre-requisite:** Successful completion of ENG 101 with a grade of C or higher.

**GEO 102 - Physical Geography****3 Credits**

Students are introduced to the physical and environmental systems of the Earth, the dynamic processes that shape and characterize our planet, and to the geography of the natural world. Hands-on activities are used throughout the course to help students learn and apply concepts. Processes of and scientific terminology related to the Earth's atmosphere (weather and climate), hydrosphere (water on Earth), biosphere (geography of ecological systems), and lithosphere (materials and processes of the Earth's crust) are studied. This course also examines the powerful influences people and the environment have upon each other (e.g. storms and other natural disasters; human modification of the Earth).

**MKT 203 - The Entrepreneurial Mindset****3 Credits**

This course is designed to inspire, inform, and involve participants in the fundamental aspects of an entrepreneurial mindset and the unlimited opportunities it can provide. The course provides a comprehensive framework for understanding and implementing an entrepreneurial mindset. Students will have the opportunity to learn directly from the firsthand knowledge and experience drawn from a wide variety of successful "unlikely" entrepreneurs - ordinary people from diverse backgrounds who transformed a simple idea into a sustainable success. This course draws on eight fundamental entrepreneurial concepts that underlie entrepreneurial success.

**HOT 251 - Fruit and Vegetable Crops for Local Markets****3 Credits**

Growing and marketing fruit and vegetable crops in the Midwest requires a knowledge of the varieties and methods that are suited to local processing, marketing, and consumption. Increasing demand for local produce offers fruit and vegetable growers new opportunities to increase volume and profit margins and to develop niche markets. Crops covered in this course include small fruits, tree fruits, vegetables, and herbs.

**HOT 205 - Landscape Design Principles****4 Credits**

This course covers the elements of residential and commercial landscape design and the drafting skills used in the preparation of landscape designs. Plant and landscape material selection for appropriate hardiness zones and maintenance levels will be covered. Computer assisted design will be used to create landscape designs in the elevation and plan view.

**Pre-requisites:** Successful completion of HOT 104 and HOT 105 with a grade of "C" or better.

**HOT 244 - Landscape Management****2 Credits**

This course covers the process of developing landscape maintenance schedules and how to direct employees in grounds keeping for parks, recreational facilities, residential properties, and commercial properties. Course content includes horticultural techniques for the care of turf, herbaceous, and woody plants. This course focuses on management strategies, problem solving, and current issues in landscape management.

**HOT 204 - Horticulture Equipment and Technology****2 Credits**

The horticulture industry is becoming more mechanized as labor availability decreases and the sophistication of equipment and technology increases. In this course, students will explore, examine, operate, and maintain equipment and technologies used in horticultural practices. GPS and GIS applications will be covered.

**HOT 225 - Horticulture Operations****3 Credits**

In this course students will explore the greenhouse and nursery industry through classroom activities and field trips to local greenhouses and nurseries. Students will examine greenhouse structures, mechanical systems, and specialized equipment used for harvesting and storage. Field growing and container production of nursery stock will be covered. Production costs, revenue projections, and marketing will be discussed.

**HIS 201 History of Lagos up to the 20th Century**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**HORTICULTURE TECHNOLOGY****LANDSCAPE DESIGN SPECIALIZATION AAS.**

This program provides the student with a comprehensive mixture of academic and practical training in the field of ornamental horticulture. The flexible curriculum can accommodate career interests in either landscape contracting or design. Students will learn to design and draft landscape plans; install, construct, and maintain landscapes; and identify, select, and plant woody and herbaceous plants.

Career opportunities include positions as landscape supervisors, nursery managers, landscape contractors, and landscape designers. This program will also serve to expand the knowledge and skills of persons already working in the profession and give the student enough knowledge and experience to establish a private landscape, grounds maintenance, nursery, or greenhouse business.

Courses include those general subjects required for graduation (General Education foundation and distribution requirements); those necessary for acquiring landscaping fundamentals (core requirements); and those that reinforce the student's area of interest (landscape contracting or landscape design). This program is approved by the Landscape Contractors Association.

<b>1st Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
BIO 101	General Biology	4
HOR 162	Introduction to Plant Sciences	4
ENG 101	English Composition I	3
LNT 105	Introduction to Sustainable Landscaping	2
LNT 253	Plant Materials I	3
MAT 110	Math Measurement & Literacy	2
	Total Semester Credit Units	18

<b>2<sup>nd</sup> Semester (Freshman)</b>		
Course Code	Course Title	Credit Units/Hours
HOR 244	Computer Aided Drafting and Design (CADD) for Landscape Designers .	3
HOR 265	Advanced Plant Materials	2
COM 112	Business and Professional Speech Communication	3
HOR 100	Introduction to Horticulture	3
LAT 102	Plant Establishment and Maintenance	3
HOR 168 -	Plant Propagation	3
	Total Semester Credit Units	17

<b>1 Semester (summer)</b>		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3

<b>3<sup>rd</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
HOR 166 -	Soils & Fertilizers	3
AGR 214	Agricultural Marketing	3
PHT 161	Introduction to Digital Photography	3
HLT 121	Nutrition for Fitness and Wellness	1
HOR 164	Horticulture Pest Management	3
LAT 224	Grading and Drainage	3
	Total Semester Credit Units	16

<b>4<sup>th</sup> Semester (Sophomore)</b>		
Course Code	Course Title	Credit Units/Hours
LNT 258 -	Landscape Management	3
LNT 280	Landscape Technology Internship	2
PSY 101	General Psychology	3
CHM 109	Chemistry and Society	3
CHM 109L	Chemistry and Society Laboratory	1
LAT 264	Landscape Estimating and Bidding	3
	Total Semester Credit Units	15

### **ENG 101 - English Composition I**

**3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

### **COM 112 - Business and Professional Speech Communication**

**3 Credits**

A study of communication theory as applied to business and organizational environments. Emphasis on development of effective communication skills for professional situations including team building, interviewing, public speaking, and accommodating diverse perspectives.

### **HLT 121 - Nutrition for Fitness and Wellness**

**3 Credits**

This course provides an overview of the basic principles of nutrition and weight management with particular application to fitness and sport. The focus is on optimal wellness and, hence, disease prevention. Nutritional and body composition guidelines will be critically examined in order to personalize them for the individual, as well as for high-level participants in a variety of sporting activities.

### **PHT 161 - Introduction to Digital Photography**

**3 Credits**

An introduction to digital photography using digital cameras and basic image editing software. This course includes print production for making black-and-white and color photographs and studio techniques that include portrait lighting and still life photography.

No prior photography experience is required. Students use digital photography for the production of a photographic portfolio.

**LNT 105 - Introduction to Sustainable Landscaping**

**2 Credits**

An overview of the basic aspects of the green industry, highlighting current environmental trends and sustainability issues. This course will introduce students to the theoretical and practical aspects of the industry, including techniques and approaches for maintaining and improving soil health and managing storm water, as well as provide a basic understanding of growth and nutrition to ensure environmental sustainability. Students will learn about national, state and local guidelines promoting sustainability in landscape design and management.

**HOR 162 - Introduction to Plant Sciences**

**4 Credits**

This course explores the many facets of plant science and provides students with a strong foundation in the basics of botany and horticulture. Included topics are plant anatomy, morphology, physiology, classification, genetics, and the importance of plants to society. Students will apply learned fundamentals of plant propagation and nutrition during laboratory investigations. Field trips may be required.

**HOR 168 - Plant Propagation**

**3 Credits**

This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

**CHM 109 - Chemistry and Society**

**3 Credits**

Development of an understanding of the basic principles that are the foundations of chemistry; the significance of chemistry in our society; and the application of chemistry to environmental problems such as air and water pollution, food additives, solid waste recycling, and the energy resources of the earth.

**CHM 109L - Chemistry and Society Laboratory**

**1 Credit**

Laboratory work deals with experiments that illustrate the significance of chemistry in our society and reinforces the principles discussed in CHEM 109.

**Pre- or Co requisite:** Successful completion of CHM 109 with a grade of “C” or better..

**MAT 110 - Math Measurement & Literacy**

**3 Credits**

This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.

**PSY 101      Introduction to Psychology****3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment, applications of psychology in a culturally diverse world.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800****3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present****3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**HOR 100 - Introduction to Horticulture****3 Credits**

Introduces commercial horticulture industry with emphasis on career opportunities. Examines equipment; facilities; and physical arrangements of production, wholesale, and retail establishments. Surveys individual areas within horticulture industry.

**LAT 102      Plant Establishment and Maintenance****3 Credits**

Introduces industry standards for the selection, establishment, and maintenance of landscape plants. Provides hands-on experience for plant establishment and maintenance including planting, watering, fertilizing, and pruning.

**HOR 166 - Soils & Fertilizers****3 Credits**

This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation; classification; physical, chemical, and biological properties (including microorganisms); testing; and fertilizer application. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices



**HOR 164 – Horticulture Pest Management****3 Credits**

This course covers the identification and management of plant pests including insects, diseases, and weeds. Topics include pest identification and beneficial organisms, pesticide application safety and use of least toxic methods of management. Upon completion, students should be able to manage common landscape pests using least toxic methods of control.

**HOR 265 - Advanced Plant Materials****2 Credits**

This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements, and landscape uses. Upon completion, students should be able to correctly select plants for specific landscape uses.

**AGR 214 - Agricultural Marketing****3 Credits**

This course covers basic marketing principles for agricultural products. Topics include buying, selling, processing, standardizing, grading, storing, and marketing of agricultural commodities. Upon completion, students should be able to construct a marketing plan for an agricultural product

**LNT 253 - Plant Materials I****3 Credits**

Identification and uses of deciduous plant material commonly used in the landscape in Maryland and surrounding states for residential and commercial plantings. Emphasis on native and non-native deciduous trees and shrubs. Plant heights, shapes, seasonal interest, flower time, colors, fruiting characteristics, and other landscape characteristics are covered. This course is intended to prepare the student to make appropriate selection of plant materials for particular landscape situations.

**HIS 201 History of Lagos up to the 20th Century****3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**HRT 244 Computer Aided Drafting and Design (CADD) for Landscape Designers 3 Credits**

Provides instruction in the use of computer-aided drafting and design software for developing landscape plans and supporting information for drawings such as dimensions and area calculations.

**Pre-requisite(s):** Successful completion of HRT 231 with a grade of “C” or better.

**Co requisite(s):** HRT 232.

**LNT 258 - Landscape Management****3 Credits**

Landscape management skills in site preparation and modification for landscape planting. Handling of balled and bur lapped plant stock and container nursery stock in the transplanting process. Evaluating the soils of planting sites. Study of fertility practices, drainage problems, use and limitations of soil amendments, methods for selecting healthy plant material, pruning techniques, mulch materials, and chemical and nonchemical methods of weed control.

Understanding the job estimating process

**LNT 280 Landscape Technology Internship****2 Credits**

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**LAT 224 Grading and Drainage****3 Credits**

Covers the interpretation of design documents to lay out grading and drainage projects. Includes the design and installation of drainage elements per site requirements. Introduces tools and methods for grading landscape sites based on design documents and field measurements.

**Pre-requisites:** Successful completion of LAT 236 and LAT 223 with a grade of "C" or better. or instructor permission.

**LAT 264 Landscape Estimating and Bidding****3 Credits**

Presents methods and mechanics of estimation. Includes interpretation of specifications and drawings, material take-offs, labor, equipment, contingency, and overhead calculations, pricing strategies, production rates, bid procedures, recordkeeping, and computer use.

**HOR 259 – Arboriculture****3 Credits**

Studies the techniques of tree care. Covers surgery, pruning, insect and disease recognition and control, fertilization, cabling, and lightning rod installation.

**HOR 244 Computer Aided Drafting and Design (CADD) for Landscape design 3 Credits**

Provides instruction in the use of computer-aided drafting and design software for developing landscape plans and supporting information for drawings such as dimensions and area calculations. Lecture 3 hours per week.

### **ANIMAL & POULTRY SCIENCE, AS**

A program that focuses on the application of biological and chemical principles to the production and management of poultry animals and the production and handling of poultry products. Includes instruction in avian sciences, nutrition sciences, food science and technology, biochemistry, hatchery design, and related aspects of human and animal health and safety. This degree is also specifically intended to facilitate a seamless transfer to a four year college (University) in the CSU system to pursue a baccalaureate degree in Animal & Poultry Science.

1 <sup>st</sup> Semester (Freshman)		
Course Code	Course Title	Credit Units/Hours
ENG101	English Composition I	3
BIO-101	General Biology I & Lab	4
POS 101	Avian Biology	2
MAT-121	College Algebra	3
ECO 201	Macroeconomics	3
	Total Semester Credit Hours	15

2 <sup>nd</sup> Semester (Freshman)		
Course Code	Course Title	Credit Units/Hours
ENG-102	English Composition II	3
BIO-102	General Biology II & Lab	4
MAT-122	Trigonometry	3
BIO 224	Anatomy And Physiology I	4
AGR-102	Ag & NR Science	1
ECO 221	Microeconomics	3
	Total Semester Credit Hours	18

1 Semester (summer)		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3

3 <sup>rd</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Units/Hours
ENG-201.	World Literature	3
NTR-205	Ecology	4
CHM-101	General Chemistry I & Lab	4
AGR-206	Intro to Animal Science	3
POS 102	- Introduction to Poultry Careers	2
	Total Semester Credit Hours	17

4 <sup>th</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Units/Hours
CIS 101	- Information Systems I	3
COM 110	Fundamentals of Public Speaking	3
CHM -102	General Chemistry II & Lab	4
AGR-207	Intro to Animal Nutrition	3
ANI 204	Monogastric Production Systems	2
ANI 205	Ruminant Production Systems	2
	Total Semester Credit Hours	17

### **ENG 101 - English Composition I**

**3Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

### **ENG 102 - English Composition II**

**3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

### **SPC 103 - Fundamentals of Public Speaking**

**3 Credits**

Public speaking course designed to introduce the student to the communicative act and provide experience in composing and delivering different types of speeches.

### **MAT 112 - College Algebra**

**3 Credits**

College Algebra provides the student with a foundation in problem solving in these topics: functions, graphing techniques, polynomial, rational exponential, and logarithmic functions; systems of equations and inequalities, matrices, and determinants, sequences and series, and the binomial theorem. Concepts and problem solving are presented from both the traditional and graphing calculator approaches. A graphing calculator is required, and the TI-83+ calculator is recommended.

**BIO 111 - General Biology****4 Credits**

Provides an integrated study of plant and animal topics including the scientific method, introductory biological chemistry, cell structure, function and reproduction, nutrition, energy transformations such as photosynthesis and cellular respiration, the molecular basis of inheritance and the interaction of the organism and the environment. Lab Fee.

**CHM 120 - General Chemistry I****4 Credits**

Provides the student with the fundamental laws and theories with respect to structure and interactions of matter, properties of matter, stoichiometry, chemical bonding, chemical reactions, physical states of matter, and changes of state. Lab Fee.

Co requisite: MAT 112 - College Algebra.

**PHL 101 - Introduction to Philosophy :****3 Credits**

This course provides a general overview of the historical development and the major systems of philosophic thought, the nature of man, knowledge, morality, social and political theory, and the existence of God.

**CIS 101 - Information Systems I****3 Credits**

This course introduces computer terminology and concepts, Web browser, word processing, spreadsheet, database, and presentations software. Emphasis is placed on hands-on practice to produce interesting and useful projects, and computer skills will be reinforced through the use of tutorials and cases. Lab Fee.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800****3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present****3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**POS 102 - Introduction to Poultry Careers****2 Credits**

Students will be introduced to the wide variety of the career opportunities associated with the poultry industry, allied poultry industries, as well as regulatory and research entities

**POS 101 - Avian Biology****2 Credits**

Students will be introduced to the biological sciences associated with poultry. Topics will include avian origins, types of domestic poultry, basic anatomy/physiology, poultry care/husbandry, and disease recognition. This course will serve as a foundation for poultry production courses.

**HIS 201 History of Lagos up to the 20th Century****3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**ENG 201- World Literature I****3 Credits**

Survey of master works of literature of the world from the ancient period through the Renaissance.

**Pre-requisites:** Successful completion of ENG 112 with a grade of "C" or better

**CHM 220 - General Chemistry II****4 Credits**

Continuation of CHM 120 - General Chemistry I. The study of solutions, chemical kinetics, equilibrium, pH, electro chemistry, nuclear chemistry, and fundamental concepts of organic chemistry. Lab Fee.

**Pre-requisites:** Successful completion of CHM 120 with a grade of "C" or better

**ECO 220 – Macroeconomics****3 Credits**

Designed as the introductory course to basic economic concepts, tools, reasoning, and methods of analysis relating to the economizing problem and capitalism. The course concentrates on basic topics of the determinants of employment and prices; measuring national income; monetary and fiscal policy; and money and banking.

**ECO 221 – Microeconomics****3 Credits**

Continues Macroeconomics with emphasis on the microeconomic topics of theories of consumer behavior; cost and price; and production, consumption and distribution of goods between consumers, producers, and resource suppliers in market models of pure competition and imperfectly competitive markets.

**AGR -206. Introduction to Animal Science****3 Credits**

A study of the various species of livestock and their commercial production. Breed characteristics will be studied as they relate to selection, feeding, care, disease control, and marketing for maximum economic performance. The role of animal agriculture in U.S. society today will be stressed.

**Pre-requisites:** Successful completion of BIO-101, BIO-102, CHM-101 with a grade of C or higher.

**AGR -207. Introduction to Animal Nutrition****3Credits**

Basic nutrition and feeding practices for the various species of commercial livestock including wild animals. Feeds, their sources, composition, characteristics, and feed value will be explored. Ration balancing and its practical field application will be discussed.

**Pre-requisites:** Successful completion of AGR-206 with a grade of C or higher.

**BIO 222 - Anatomy And Physiology I****3 Credits**

Designed to study the anatomy and physiology of the human body. Topics include introductory biological chemistry, study of cells and tissues, the integument, skeletal system, muscular system, and the nervous system. Lab Fee.

**ANI 204 Monogastric Production Systems****2 Credits**

Concepts and practices used in the sustainable management of pig and poultry intensive livestock enterprises in Australia.

**ANI 205 Ruminant Production Systems****2 Credits**

Advanced concepts and practices used in the sustainable management of cattle, sheep and goat enterprises in Nigeria Q-fever vaccine highly recommended.

**ANIMAL VETERINARY SCIENCES, AS.**

The Animal Veterinary Sciences major has a strong foundational basis in the sciences. The curriculum is designed to prepare students with interests in the following career areas:

Agriculture production, Animal health, Veterinary medicine, Veterinary technology, Animal behavior, Agriculture sustainability, Agriculture extension. The program of study will prepare students for a wide range of agricultural occupations, as well as transfer to four-year universities and professional programs. Students are encouraged to contact their advisors and their future transfer institution (if known) for additional information regarding course selection.

	1st Semester (Freshman)	
Course Code	Course Title	Credit Units/Hours
AGR 109	Principles of Animal Science	3
AGR 109L	Principles of Animal Science Lab	1
ENG101	Writing and Rhetoric I	3
MAT 170	Calculus I	4
COM 101	Fundamentals of Oral Communication	2
CIS 103	Computer Applications & Concepts	3
	Total Semester Credit Hours	16

	2nd Semester (Freshman)	
Course Code	Course Title	Credit Units/Hours
BIO 111	Biology I	3
BIO 111L	Biology I Lab	1
ENG 102	Writing and Rhetoric II	3
FRE 101	Elementary French I	3
CHM 102	Essentials of Organic and Biochemistry	4
CHM 102L	Essentials of Organic and Biochemistry Lab	1
	Total Semester Credit Hours	15

1 Semester (summer)		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3
	Total Semester Credit Hours	6

	3 <sup>rd</sup> Semester (Sophomore)	
Course Code	Course Title	Credit Units/Hours
AGR 120	Global Food Perspectives - Farm to Plate	3
AGR 271	Animal Anatomy and Physiology	3
AGR 271L	Animal Anatomy and Physiology Lab	1
ENG 202	Technical Communication	2
SCI 102	Ethics in Science	3
PHY 111	General Physics I	3
PHY 111L	General Physics I Lab	1
	Total Semester Credit Hours	16

	4 <sup>th</sup> Semester (Sophomore)	
Course Code	Course Title	Credit Units/Hours
FRE 102	Elementary French II	3
MCB 250	General Microbiology	2
MCB 250L	General Microbiology Lab1	1
CHM 111	General Chemistry I	2
CHM 111L	General Chemistry I Lab1	1
PSY 101	Introduction to Psychology	3
	Total Semester Credit Hours	16

### **AGR 109 Principles of Animal Science**

**3 Credits**

The focus of this course is the scope and potential of the livestock industry and its relationship to society and food systems. Introductory scientific principles of animal science, livestock production systems, and current issues will be taught.

Co **requisite:** AGR 109L.



**AGR 109L Principles of Animal Science Lab****1 Credit**

The focus of this course is the scope and potential of the livestock industry and its relationship to society and food systems. Introductory scientific principles of animal science, livestock production systems, and current issues will be taught.

Co **requisite**: AGR 109.

**ENG 101 - English Composition I****3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**ENG 102 - English Composition II****3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites**: Successful completion of ENG 101 with a grade of C or better.

**FRE 101 Elementary French I****4 Credits**

This course is an introduction to French, emphasizing oral communication, listening, and writing skills. Students learn basic structures in a structured environment; they practice idioms and situational vocabulary used in conversations. The course is also an introduction to French culture.

**FRE 102 Elementary French II****4 Credits**

This course continues its emphasis on oral, listening, reading, and writing skills in order to complete acquisition of the basic structures of the language. In addition, students study idioms and vocabulary used in ordinary situations. Students will gain increased knowledge and understanding of French culture.

**Pre-requisite**: Successful completion of FRE 101 with a grade of C or better or PERM/INST

**PSY 101 Introduction to Psychology****3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**CHM 102 Essentials of Organic and Biochemistry****4 Credits**

The nomenclature, reactions, and structure/property relationships of organic compounds. The study of the structure and function of proteins, carbohydrates, lipids and nucleic acids and an introduction to major bio-energetic pathways.

**Pre-requisite**: Successful completion of CHM 101, CHM 111 with a grade of C or better or. Co **requisite**: CHM 102L

**CHM 102L Essentials of Organic and Biochemistry Lab****1 Credit**

This is the required lab accompanying CHEM 102, which studies the nomenclature, reactions, and structure/property relationships of organic compounds. The study of the structure and function of proteins, carbohydrates, lipids, and nucleic acids and an introduction to major bio energetic pathways.

**Pre-requisite:** Successful completion of CHM 101, CHM 111 with a grade of C or better or Co **requisite:** CHM 102.

**PHY 111 General Physics I****3 Credits**

This course includes a general study of kinematics, Newton's Laws of Motion, universal gravitation, work, mechanical energy, motion in a plane, momentum, hydrostatics, SHM, wave motion, sound, introductory thermodynamics, and heat transfer with applications to life sciences.

**Co requisite:** PHY 111L

**PHY 111L General Physics I Lab****1 Credit**

This required lab accompanies PHY 111, which includes a general study of kinematics, Newton's Laws of Motion, universal gravitation, work, mechanical energy, motion in a plane, momentum, hydrostatics, SHM, wave motion, sound, introductory thermodynamics, and heat transfer with applications to life sciences.

**Co requisite:** PHY 111.

**CHM 111 General Chemistry I****3 Credits**

A thorough study of the fundamentals and principles of chemistry. This course is designed for students majoring in chemistry, pre-medicine, pre-dentistry, engineering, or science. The lecture and laboratory will cover inorganic reactions, atomic structure, stoichiometry, thermo chemistry, solutions, chemical bonding, and the states of matter.

**CHM 111L General Chemistry I Lab****1 Credit**

This is the required lab to accompany CHM 111, which is a thorough study of the fundamentals and principles of chemistry. This course is designed for students majoring in chemistry, pre-medicine, pre-dentistry, engineering, or science. The lecture and laboratory will cover inorganic reactions, atomic structure, stoichiometry, thermochemistry, solutions, chemical bonding, and the states of matter.

**Pre-requisite:** Successful completion of CHM 111 with a grade of C or better.

**MAT 170 Calculus I****4 Credits**

This is the first course in the calculus sequence. It covers algebraic and transcendental functions; rate of change; limits; continuity; differentiation of algebraic, trigonometric, exponential, logarithmic, and hyperbolic functions; differentials; applications of differentiation; definite and indefinite integrals; area between curves; volumes; and other applications of integration, indeterminate forms, and L'Hôpital's rule.

**COM 101 Fundamentals of Speech Communication****2 Credits**

Theory and practice of oral communication; development of poise and confidence, delivery, and speech organization; public speaking practice; small group discussion, and development of standards of criticism. Writing assignments, as appropriate to the discipline, are part of the course.

**CIS 103 - Computer Applications & Concepts****3 Credits**

This course is an exploration of modern computer technology used for communication, collaboration, problem solving, decision making, and increasing personal productivity. Topics covered include word processing, electronic spreadsheet, presentation, and database management software; collaboration and networking software; the Internet of Things; and ethical issues related to technology.

**BIO 111 Biology I****3 Credits**

This is an introductory biology course for science majors. It will emphasize biological principles important in understanding living organisms to include evolution, general biochemistry, cytology, Mendelian and molecular genetics.

**BIOL 111L Biology I Lab****1 Credit**

Students will engage with the process of science via making observations, developing questions, designing experiments, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. Additional fee required for lab.

**Corequisite.** BIO 111

**SCI 102 Ethics in Science****3 Credits**

Scientific innovation is a driving force behind our changing society. It is becoming increasingly more important for the average citizen to understand how ethics drive this continued process of innovation. Students will examine the history and various points of view associated with scientific issues and determine how ethics can be used to navigate these problems. This course is designed for all students interested in ethical facets of science.

**AGR 120 Global Food Perspectives - Farm to Plate****3 Credits**

This course provides students with an introduction to global food systems (farm to plate). Students will discuss the social, economic, environmental and global dimensions of food systems and agriculture. Topics will include technological development related to food, genetic resources and biotechnology, agricultural policies, organic production, globalization structures, animal and bio-fuels production, and sustainability.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800****3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present****3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**HIS 201 History of Lagos up to the 20th Century****3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**AGR 271 Animal Anatomy and Physiology****3 Credits**

This course is an introduction to the study of structure (anatomy) and function (physiology) of tissues and organ systems of domestic animals. Students will develop their knowledge of animal anatomy and physiology as a basis for understanding care and management of livestock.

**Pre-requisite:** Successful completion of AGR 109, AGR 109L, BIO 111 with a grade of C or better. **Corequisite:** AGR 271L

**AGR 271L Animal Anatomy and Physiology Lab****1 Credit**

This course is an introduction to the study of structure (anatomy) and function (physiology) of tissues and organ systems of domestic animals. Students will develop their knowledge of animal anatomy and physiology as a basis for understanding care and management of livestock.

**Pre-requisite:** AGR 109, AGR 109L, BIO 111, and BIO 111L with a grade of C or better. **Co requisite:** AGR 271.

**ENG 202 Technical Communication****3 Credits**

This course is an overview and practice of the principles and applications of technical communication. Topics include audience analysis, the writing process, rhetorical analysis, and the ethics of technical communication. Students will produce letters, memos, instructions, reports, proposals, and other technical documents.

**Pre-requisite:** Successful completion of ENG 101 with a grade of C or better

**MCB 250 General Microbiology****3 Credits,**

This course introduces students to the core concepts and competencies important to the study of microbiology. These topics include: microbial evolution; structure of cells and how this relates to function; information flow, exchange, and storage within the cell and within microbial communities; pathways and transformations of energy and matter within the cell and within microbial communities; systems within the cell and within communities; and the impact of microbes on humans and the environment.

**Pre-requisite:** Successful completion of BIO 111, BIO 111L, CHM 111 with a grade of C or better **Co requisite** MCB 250L

**MCB 250L General Microbiology Lab****1 Credit**

This lab is designed to teach microbiology skills, including lab safety, aseptic technique, microscope use, staining, and interpreting biochemical tests. Competency in lab safety, aseptic technique, and microscope use will be required for successful completion of the course.

**Pre-requisite:** Successful completion of BIO 111, BIO 111L, CHM 111 with a grade of C or better. Corequisite MCB250.

**DEPATMENT OF FOOD SYSTEMS****FOOD SCIENCE, AS**

The Associate of Science in Food Science is designed to prepare students for transfer as juniors to a four-year program in food science. It is the basis of a transfer agreement that facilitates credit transfer from NAAC to the College of Food, Agriculture and Natural Resource Sciences (CFANS) at the Universities in United State of America Students who complete the AS may apply a minimum of 60 credits toward the bachelor's degree.

Food scientists and technologists use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of food; analyze food content; discover new food sources; make processed foods safe, palatable, and healthful; and determine best ways to process, package, preserve, store and distribute food.

	<b>1<sup>st</sup>Semester (Freshman)</b>	
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Units/Hours</b>
BIO 101	Biological Science I	4
CHM 110	College Chemistry I	4
ENG 101	English Composition I	3
MAT 130	Elementary Calculus	3
	Total Semester Credit Units	14

	2 <sup>nd</sup> Semester (Freshman)	
Course Code	Course Title	Credit Units/Hours
BIO 102	Biological Science II	4
CHM 111	College Chemistry II	4
ENG 102	English Composition II	3
PSY 101	Introduction to Psychology	3
CSC 130	Introduction to Computing	3
	Total Semester Credit Units	17

1 Semester (summer)		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3
	Total Semester Credit Hours	6

	3rd Semester(Sophomore)	
Course Code	Course Title	Credit Units/Hours
BIO 225	Microbiology	4
ENG 201	American Literature I	3
MUS 105	Music Appreciation	3
COM 205	Public Speaking	3
FSC 210	Introduction to Food Science	3
	Total Semester Credit Units	16

	4 <sup>th</sup> Semester(Sophomore)	
Course Code	Course Title	Credit Units/Hours
ECO 211	Microeconomics	3
MAT 120	Probability and Statistics	3
PHY 201	Physics I	4
NUT 110	Principles of Nutrition	3
CHM 210	Introduction to Organic Chemistry=	4
	Total Semester Credit Units	14

### **BIO 101 Biological Science I**

**4 Credits**

This course is the first of a sequence introducing biology. Topics include the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, natural selection, evolution, and ecology.

**Pre-requisites:** Successful completion of RDG 032, RWR 032 with a grade of “C” or better

**CHM 110 College Chemistry I**

**4 Credits**

This is the first course in a sequence which includes the following topics: atomic and molecular structure, nomenclature and equations, properties, reactions and states of matter, stoichiometry, gas laws, solutions, and equilibria

**MAT 120 Probability and Statistics**

**3 Credits**

This course includes the following topics: introductory probability and statistics including organization of data, sample space concepts, random variables, counting problems, binomial and normal distributions, Central Limit Theorem, confidence intervals, and hypothesis tests for large and small samples, types I and II errors, linear regression and correlation.

**Pre-requisites:** Successful completion of MAT 102, MAT 110 with a grade of “C” or better or equivalent

**ENG 101 - English Composition I**

**3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**ENG 102 - English Composition II**

**3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students’ writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

**MAT 130 Elementary Calculus**

**3 Credits**

This course includes the following topics: differentiation and integration of polynomials, rational, logarithmic and exponential functions, and interpretation and applications of these processes.

**Pre-requisites:** Successful completion of MAT 110 with a grade of “C” or better or equivalent

**BIO 102 Biological Science II**

**4 Credits**

This is a continuation of introductory biology which includes classification of organisms and structural and functional considerations of all kingdoms (particularly major phyla as well as viruses). Vertebrate animals and vascular plants are emphasized.

**Pre-requisites:** Successful completion of BIO 101 with a grade of “C” or better.

**CHM 111 College Chemistry II**

**4 Credits**

This course is a continuation of the study of atomic and molecular structure, nomenclature and equations, properties, reactions and states of matter, stoichiometry, gas laws, solutions, and equilibria. Other topics included are kinetics, thermodynamics, and electrochemistry.

**Pre-requisites:** Successful completion of CHM 110 with a grade of “C” or better

**CSC 130 Introduction to Computing**

**3 Credits**

Overview of computer systems hardware, operating systems, and microcomputer application software, including the Internet, word processing, spreadsheets, presentation graphics, and databases. Current issues such as the effect of computers on society, and the history and use of computers in business, educational, and other modern settings are also studied.

**NUT 110 Principles of Nutrition**

**3 Credits**

Emphasis on physiological function of nutrients in the human body, including digestion, absorption, and metabolism. Basic principles of nutrition are used to demonstrate and evaluate disease preventing diets that are determined by scientific criteria. Application of nutrition theories are illustrated by an in-depth dietary analysis utilizing databases, calculations, and scientific inquiry. Taught by registered dietitians.

**MUS 105 Music Appreciation**

**3 Credits**

This course is an introduction to the study of music with a focus on the elements of music and their relationships, the musical characteristics of representative works and composers, common musical forms and genres of various western and non-western historical style periods, and appropriate listening experiences.

**PSY 101 Introduction to Psychology**

**3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800**

**3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

**3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic;



the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**HIS 201 History of Lagos up to the 20th Century**

**3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**CHM 210 Introduction to Organic Chemistry**

**4 Credits**

This course is an introduction to organic chemistry emphasizing nomenclature, classes of organic compounds, and chemistry of functional groups.

**Pre-requisites:** Successful completion of CHM 111 with a grade of "C" or better

**BIO 225 Microbiology**

**4 Credits**

This is a detailed study of microbiology as it relates to infection and the disease processes of the body. Topics include immunity, epidemiology, medically important microorganisms, and diagnostic procedures for identification.

**Pre-requisites:** Successful completion of BIO 102 or BIO 211 with a grade of "C" or better or

**ENG 201 American Literature I**

**3 Credits**

A study of American literature from the colonial period to the Civil War.

**Pre-requisites:** Successful completion of ENG 102 with a grade of "C" or better

**COM 205 Public Speaking**

**3 Credits**

This course is an introduction to the principles of public speaking with application of speaking skills.

**Pre-requisites:** Successful completion of ENG 101 with a grade of "C" or better

**FSCI 210 Introduction to Food Science**

**3 Credits**

Introduction to the composition and the chemical and physical properties of foods, and the interaction, reaction, and evaluation of foods due to formulation, processing, and preparation.

**Pre-requisites:** Successful completion of CHM 102, or HLT 110 with a grade of "C" or better

**ECO 211 - Microeconomics**

**3 Credits:**

This course includes the study of the behavior of households and firms. Including supply and demand, elasticity, price/input in different market structures, pricing of resources, regulations and comparative advantage and trade.

**Pre-requisites:** Successful completion of RDG 032 or RWR 032 and MAT 032 with grade of “C” or better

### **PHY 201 Physics I**

**4 Credits:**

This is the first in a sequence of physics courses. Topics include mechanics, wave motion, sound, heat, electromagnetism, optics, and modern physics.

**Pre-requisites:** Successful completion of MAT 110 or MAT 175 with a grade of “C” or better

### **APPLIED NUTRITION, AS**

NAAC’s Associate of Science in Applied Nutrition, is a two-year degree that prepares graduates for entry-level positions in traditional health settings such as hospitals, private medical offices, and public health agencies, as well as integrative health and wellness organizations and companies.

The AS Applied Nutrition Curriculum is designed to also prepare students for transfer as juniors to a four-year program in Nutritional science.

1 <sup>st</sup> Semester (Freshman)		
Course Code	Course Title	Credit Units/Hours
ENG-101	English Composition I	3
BIO-101 or	General Biology 1	4
BIO210	Human Biology	4
FOS -101	Intro to Food Science	2
NUT -102	Concepts in Nutrition	3
MAT-121	College Algebra	3
	Total Semester Credit Hours	15

2 <sup>nd</sup> Semester (Freshman)		
Course Code	Course Title	Credit Units/Hours
ENG-102	English Composition II*	3
BIO230	Anatomy and Physiology I	3
NUT222	Community Nutrition	3
NUT-105	Principles & Analysis of Food Prep	4
SOC-101	Introduction to Sociology OR	3
PSY 101	Introduction to Psychology	3
KNE-101	Lifetime Fitness & Wellness *	1
	Total Semester Credits Hours	17

1 Semester (summer)		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3
	Total Semester Credit Hours	6

3rd (Semester) Sophomore		
Course Code	Course Title	Credit Units/Hours
CHM-101	General Chemistry I	4
BUS140	Contemporary Marketing	3
NUT-215	Introduction to Nutrition	3
ENG-201	. World Literature I	3
ART 159 -	Art Appreciation For Non-Art Majors	3
	Total Credits	16

4 <sup>th</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Units/Hours
CHM 201 or	Organic and Biochemistry	4
CHM102	General Chemistry II	4
COM 110	- Fundamentals of Public Speaking	3
HIS 112	History of American People From 1865	3
BIO231	Anatomy and Physiology II	3
MAT101	Business Mathematics	3
	Total Credits	16

### **KNE 101 Introduction to Kinesiology**

**2 Credits**

This course explores the broad spectrum of kinesiology as an academic discipline, fundamental concepts and meaning of movement/physical activity, diversity of humans as moving beings, professional/career options, current/ social issues, personal characteristics/ professional responsibilities.

### **PSY 101 Introduction to Psychology**

**3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**ENG 101 - English Composition I****3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**ENG 102 - English Composition II****3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

**CIS 101 - Information Systems I****3 Credits**

This course introduces computer terminology and concepts, Web browser, word processing, spreadsheet, database, and presentations software. Emphasis is placed on hands-on practice to produce interesting and useful projects, and computer skills will be reinforced through the use of tutorials and cases. Lab Fee.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800****3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present****3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**COM 110 - Fundamentals of Public Speaking****3 Credits**

Public speaking course designed to introduce the student to the communicative act and provide experience in composing and delivering different types of speeches.

**ART 159 - Art Appreciation For Non-Art Majors****3 Credits**

A course designed to analyze the structures, functions, styles, and mediums of the visual arts as they relate to and influence contemporary life.

**BUS140 Contemporary Marketing****3 Credits**

The students in this course will study fundamental marketing concepts in such substantive areas as: creating customer value, buying behaviors, market research, market strategy, target market analysis, global marketing, electronic marketing, and sales techniques, with particular emphasis on the marketing mix, including product, pricing, promotion, and distribution decisions

**NUT -102 Concepts in Nutrition****3 Credits**

This is course emphasizes the fundamental concepts of nutrition with a focus on the relationships of nutrients to health, fitness, and athletic performance. Topics include basic dietary constituents, principles of body function, considerations for disease prevention and management, dietary regulation, dietary myths, food safety and weight management.

**NUT 105 Principles and Analysis of Food Preparation –****3 Credits**

Study of food composition and preparation of culturally diverse foods. Analysis of how physical and chemical changes occurring during food preparation and storage affect sensory characteristics, palatability, shelf life, and nutrient composition of foods. The course includes a weekly lab.

**FOS 101 Introduction to Food Science –****3 Credits**

Introduction to the composition, chemical and physical properties of foods. Effect of formulation, processing, and preservation on food quality and interactions of food components. Discussion of evaluation criteria and methodology.

**CHM101 General Chemistry****3 Credits**

A brief presentation of introductory chemical concepts including atomic structure, the chemical equation, the behavior of gases, the chemistry of solution and acid-base chemistry. For students with good knowledge of algebra.

**MAT 121 – College Algebra.****3 Credits**

A course designed to expose students to polynomial functions, real and complex roots, rational equations, radical equations, absolute value equations, linear and polynomial inequalities, exponential and logarithmic functions, graphing, modeling, and applications. Four (4) contact hours.

**MAT122 Business Mathematics****3 Credits**

This course is designed to develop the computational and vocabulary skills necessary for: retailing, marketing, accounting, finance and business management. Topics studied include: interest, banking, depreciation systems, payroll, statistics and graphics. It includes expanded application of algebraic principles through the study of quadratics and linear equations to business problems including standard of deviation and coefficient of variation to quality control problems.

**BIO-101. General Biology I****4 Credits**

An introduction to the study of life with emphasis on basic concepts in the areas of energy relationships, cell biology, genetics, and molecular biology. Along with General Biology II, it provides a thorough survey of basic principles in the Biological Sciences.

**BIO-102. General Biology II****4 Credits**

An introduction to the study of life with emphasis on basic concepts in the areas of evolution, animal anatomy and physiology, plant biology, and ecology. Along with General Biology I, it provides a thorough survey of basic principles in the Biological Sciences.

**Pre-requisites** BIO-101 with a grade of C or higher, or permission of instructor.

**HIS 201 History of Lagos up to the 20th Century****3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**BIO210 Human Biology****3Credits**

This course covers the fundamental principles of cell biology, genetics and human biology with emphasis on the morphology, physiology and disorder of body systems.

**BIO230 Anatomy and Physiology I****3 Credits**

This course is intended for nursing and allied health students requiring a two-semester anatomy and physiology sequence. .This course covers structure and function of cells and tissues, along with the anatomy and physiology of the integumentary, skeletal, nervous and muscular systems.

**BIO231 Anatomy and Physiology II****3Credits**

Integrates the study of gross and microscopic anatomy with physiology, emphasizing the analysis and interpretation of physiological data.

**Pre-requisite:** Successful completion ofBIO230with a grade of C or higher, or permission of instructor

**ENG-201. World Literature I****3Credits**

A broad cultural background is sought through a study of the literature and a consideration of the ideas expressed by the great men of letters from ancient Greece through the Renaissance (during the first semester) and from the Renaissance to the 20th century (second semester).

**Pre-requisites:** Successful completion ofENG-101, ENG 102 with a grade of C or higher.

**CHM 201 Organic and Biochemistry****4 Credits**

Course includes nutrition/food applications of organic and biochemistry; molecular formulas of organic compounds; physical properties of compounds; characteristics of enzymes; function of cofactors; description of biochemical pathways.

**NUT 215 Introduction to Nutrition –****3 Credits**

General understanding of the role of the gastrointestinal tract in digestion and absorption of nutrients. Emphasis is placed on nutrient functions, nutritional requirements, food sources, and the role of nutrition in health maintenance and disease prevention.

**Pre-requisites:** Successful completion of **NUT 105** with a grade of C or higher

**NUT220 Sports Nutrition****3 Credits**

The principles of fitness, motivation and conditioning; nutrition for the athlete; stress management; preventing accidents; stretching, posture and aerobics; vitamin and mineral supplementation for fitness; high and low intensity exercise; cross training; walking for weight control; case studies.

**NUT222 Community Nutrition****3 Credits**

This course deals with methods used to discover nutritional problems in the community and the different strategies and education programs that may be implemented in order to improve nutritional status and health.

**DEPARTMENT OF NATURAL RESOURCES**  
**WILDLIFE MANAGEMENT AS**

NAAC associate's degree programs in wildlife management take two years to complete, including a summer term. Associate's degree programs is an introduction to the field as well as prepare graduates for transfer to the Forestry bachelor's degree. Coursework is broken down into general education, core courses and elective courses. Generally, most programs include a mixture of lectures and labs.

1 <sup>st</sup> Semester (Freshman)		
Course Code	Course Title	Credit Unit/Hours
ENG-101	English Composition I	3
KNE-101	Fitness and Wellness	1
BIO-101	General Biology I & Lab	4
MAT-121	College Algebra	3
CIS 1013	Information Systems I	3
	Total Semester Credit Hour	14

2 <sup>nd</sup> Semester (Freshman)		
Course Code	Course Title	Credit Unit/Hours
ENG-102	English Composition II	3
BIO-102	General Biology II & Lab	4
MAT-122	Trigonometry	3
NRS-103	Intro to Environmental Science	3
PHL-105	Contemporary Moral Issues.	3
	<b>Total Semester Credit Hour</b>	<b>16</b>

1 Semester (summer)		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3
	<b>Total Semester Credit Hours</b>	<b>6</b>

3 <sup>rd</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit/Hours
COM 110	Fundamentals of Public Speaking	3
ENG-201	World Literature I	3
NRS-205	Ecology	4
CHM-101	General Chemistry I & Lab	4
NRS-111	Dendrology	3
	<b>Total Semester Credit Hour</b>	<b>17</b>

4 <sup>th</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit/Hours
CIS 101	Information Systems I	3
BIO -200	Invertebrate Zoology	3
BIO 210	Genetics	4
CHM-102	General Chemistry II & Lab	4
ECO-201	Macroeconomics	3
	<b>Total Semester Credit Hour</b>	<b>17</b>

### **KNE 101 Introduction to Kinesiology**

**1 Credits**

This course explores the broad spectrum of kinesiology as an academic discipline, fundamental concepts and meaning of movement/physical activity, diversity of humans as moving beings, professional/career options, current/ social issues, personal characteristics/ professional responsibilities.

### **ENG 101 - English Composition I**

**3 Credits**



A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**ENG 102 - English Composition II**

**3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

**COM 110 - Fundamentals of Public Speaking**

**3 Credits**

Public speaking course designed to introduce the student to the communicative act and provide experience in composing and delivering different types of speeches.

**CIS 101 -Computer Information Systems I**

**3 Credits**

This course introduces computer terminology and concepts, Web browser, word processing, spreadsheet, database, and presentations software. Emphasis is placed on hands-on practice to produce interesting and useful projects, and computer skills will be reinforced through the use of tutorials and cases. Lab Fee.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800**

**3**

**Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

**3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**NRS-103. Introduction to Environmental Science**

**3 Credits**

Concepts concerning the relationships among the physical, chemical, and biological components of the environment, and the impact upon them due to the activities of our own populations. Two (2) hours lecture and two (2) hours laboratory or field exercises per week.

**MAT121 – College Algebra.****3 Credits**

A course designed to expose students to polynomial functions, real and complex roots, rational equations, radical equations, absolute value equations, linear and polynomial inequalities, exponential and logarithmic functions, graphing, modeling, and applications.

**MAT 122 – Trigonometry.****3 Credits**

A course designed to prepare students for calculus. Topics include exponential and logarithmic functions, trigonometric functions and graphs, trigonometric identities, trigonometric equations, inverse trigonometric functions, laws of sines and cosines and applications.

**PHL-105. Contemporary Moral Issues.****3 Credits**

A critical examination of such major current moral issues as abortion, euthanasia, pornography, retribution, and capital punishment, affirmative action and reverse discrimination, social and economic justice and ethical issues in agriculture and the environment. Credit, three hours.

**NTRS -111. Dendrology****3 Credits**

Systematic experience in the identification of principle forest trees of North America including special emphasis on the trees of the Delmarva Peninsula. Lectures, demonstrations, and laboratories. Credit, three hours.

**BIO-100. Introduction to Biology****4Credits**

A one-semester course dealing with biological principles. Topics include organization of living matter, metabolism, reproduction, genetics, evolution, and ecology.

**BIO-101. General Biology I****4Credits**

An introduction to the study of life with emphasis on basic concepts in the areas of energy relationships, cell biology, genetics, and molecular biology.

**BIO-102. General Biology II****4 Credits**

An introduction to the study of life with emphasis on basic concepts in the areas of evolution, animal anatomy and physiology, plant biology, and ecology. Along with General Biology I, it provides a thorough survey of basic principles in the Biological Sciences.

**Pre-requisite:** Successful completion of BIO-101 with a grade of C or higher, or permission of instructor.

**CHM-101. General Chemistry I****4Credits**

This course is the first in a two-semester sequence in a comprehensive study of the chemical and physical properties of matter including the fundamental principles of qualitative and

quantitative analysis. Topics include atomic theory and bonding, periodicities, stoichiometry, thermo chemistry, and states of matter.

**CHM-102. General Chemistry II**

**4 Credits**

Topics include solutions, energetic, dynamics, equilibrium, electrochemistry/redox. The course is designed for science and other majors which require a thorough understanding of the current content knowledge in the fundamentals of chemistry.

**Pre-requisites:** Successful completion of CHM-101 with a grade of C or higher.

**AGR-102. Agriculture and Natural Resources Science**

**1 Credit**

The role of Agriculture and Natural Resources in human history, present and future. Discussion of current opportunities.

**ENG-201. World Literature I**

**3 Credits**

A broad cultural background is sought through a study of the literature and a consideration of the ideas expressed by the great men of letters from ancient Greece through the Renaissance (during the first semester) and from the Renaissance to the 20th century (second semester).

**Pre-requisites:** Successful completion of ENG-101, ENG-102 with a grade of C or higher.

**BIO 205. Ecology**

**4 Credits**

The study of organisms in relation to their environment..

**Pre-requisites:** Successful completion of BIO-102 with a grade of C or higher, or consent of the Instructor.

**ECO 201 Principles of Macroeconomics**

**3 Credits**

An introductory study of the macroeconomy. The objective is to apply select macroeconomic theories to real-world situations. Discussion covers economic growth, technological innovation, unemployment, inflation, and the roles of monetary policy and fiscal policy in determining macroeconomic performance.

**BIO-200. Invertebrate Zoology**

**3 Credits**

A course designed to introduce the student to the major invertebrate phyla with attention given to taxonomy, morphology, physiology, ecology, and evolution.

**Pre-requisites:** Successful completion of BIO-102 with a grade of C or higher.

**AGR -208. Soil Science**

**3 Credits**

A study of soils, their physical and chemical characteristics, with special emphasis on those factors which affect plant growth. Soil formation, the use of fertilizers, and soil and water conservation are considered.

**Pre-requisites:** CHM-101, BIO-102 with a grade of C or higher.

**AGR -206. Introduction to Animal Science**

**3 Credits**

A study of the various species of livestock and their commercial production. Breed characteristics will be studied as they relate to selection, feeding, care, disease control, and marketing for maximum economic performance.

**Pre-requisites:** Successful completion of BIO-101, BIO-102, CHM-101 with a grade of C or higher.

### **AGR -207. Introduction to Animal Nutrition**

**3 Credits**

Basic nutrition and feeding practices for the various species of commercial livestock. Feeds, their sources, composition, characteristics, and feed value will be explored. Ration balancing and its practical field application will be discussed.

**Pre-requisites:** Successful completion of AGR-206 with a grade of C or higher.

### **HIS 201 History of Lagos up to the 20th Century**

**3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

1st Summer		
Course Code	Course Title	Credit Unit/Hours
FOR-275	Natural Resources Issues	1
FWL-232	Terrestrial Ecology	3
FWL-234	Aquatic Ecology	3
	Total Semester Credit Hours	7

## **FISH AND WILDLIFE MANAGEMENT, AAS**

The Fish and Wildlife Management Associate of Applied Science degree program consists of courses and projects that affect wildlife populations and wildlife recreational users. These projects usually involve habitat manipulation, management of wildlife populations, land acquisition, research, or the creation of opportunities for people to enjoy wildlife. Healthy wildlife populations depend on good habitat, so habitat maintenance and improvement receive a lot of emphasis. On private lands, efforts are geared toward incentive programs to improve habitat, especially for agricultural and woodland landowners.

**Employment Opportunities** Graduates of the Fish and Wildlife Management Associate of Applied Science degree program are prepared to serve as entry-level technicians in a wide variety of Fisheries and wildlife-related environments.

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit/Hours
BIO-101	General Biology I	3
BIO 101L	Biology Lab I	1
ENG-101	English Composition I	3
FOR-121	Dendrology	3
FWL-142	Wildlife Management	3
HUM 101	Introduction to Humanities	3
	Total Semester Credit Hours	16

2nd Semester (Freshman)		
Course Code	Course Title	Credit Unit/Hours
ENG-102	English Composition II	3
FOR-131	Forest Measurements	3
MAT 101	College Algebra	3
FWL-126	Wildlife Ornithology	3
FWL-222	Wildlife Mammalogy	3
PSY 101 or	Introductory Psychology	3
SOC 101	Introduction to Sociology	3
	Total Semester Credit Hours	18

4 <sup>th</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit/Hours
FOR-212	Forest Surveying & Aerial Interpretation	3
FWL-212	Wildlife Policy & Law	3
FOR-212 or	Fishery Management	3
FWL-212	Forest Botany	3
FWL-252	Wildlife Management Techniques	3
FOR-254	Habitat Manipulation	3
FOR-256	Survey of Environmental Ethics	3
FOR-258	Introduction to GIS/GIS	3
COM-251	Fundamentals of Public Speaking	2
FWL-224	Entomology	2
FWL 214	Plantation Operations	2
	Total Semester Credit Hours	17

<b>2nd (Summer)</b>		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3
	Total Semester Credit Hours	6

### **ENG 101 - English Composition I**

**3Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

### **ENG 102 - English Composition II**

**3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better

### **PSY 101 Introductory Psychology**

**3 Credits**

Introduces the major fields of contemporary psychology. Emphasis is on fundamental principles of psychology as a science. Topics include research design, the organization and operation of the nervous system, sensation and perception, learning and memory, motivation and emotion, thinking and intelligence, lifespan development, personality, psychopathology and interventions, stress and health, and social psychology.

### **SOC 101 Introduction to Sociology**

**3 Credits**

Explores the sociological analysis of society, its culture, and structure. Sociology is presented as a science with emphasis placed on its methodology and theoretical foundations. Topics include basic sociological concepts, socialization, social interaction and culture, social groups and institutions, deviance and social control, social stratification, social change, and marriage and family.

### **MAT 101 College Algebra**

**3 Credits**

Emphasizes techniques of problem solving using algebraic concepts. Topics include fundamental concepts of algebra, equations and inequalities, functions and graphs, and systems of equations; optional topics include sequences, series, and probability or analytic geometry.

**HUM 101 Introduction to Humanities****3 Credits**

Explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. The humanities provide insight into people and society. Topics include historical and cultural developments, contributions of the humanities, and research.

**BIO 101 Biology I****3 Credits**

Provides an introduction to basic biological concepts with a focus on living cells. Topics basic biological chemistry, molecular and cellular biology, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, and biotechnology.

**BIO 101L Biology Lab I****1 Credit**

Selected laboratory exercises paralleling the topics in BIO 101. The laboratory exercises for this course include chemical principles related to cells, cell structure and function, energy and metabolism, cell division, protein synthesis, genetics, and biotechnology.

**Corequisite BIO 101L**

**FOR 121 Dendrology****3 Credits**

Provides the basis for a fundamental understanding of the taxonomy and identification of trees and shrubs. Topics include: tree and shrub classification, tree and shrub identification, tree and shrub structure identification, and leaf structure identification. The economic importance, and wildlife benefits of trees will also be discussed. Upon completion, students should be able to identify trees and understand their uses.

**FWL-256 Survey of Environmental Ethics****1 Credit**

This course examines the ethical dilemmas faced by human cultures throughout history in their use of land and natural resources. Topics will include the environmental ethics of game and wildlife management, natural resource use, water management, biological diversity, fisheries, ocean protection, and agriculture production. Discussions will focus on different perspectives of the environment and ways to resolve ethical disputes over land management and resource use, as well as professional societies and their impacts on environmental ethics

**FWL-142 Wildlife Management****3 Credits**

This course introduces the principles of wildlife management, including basic **basic concepts**. terminology, safety and orientation, techniques important to wildlife managers and employment. Topics include a review of the history of wildlife management, ecological principles, an introduction to wildlife habitat requirements, and population dynamics. Also students will learn compass and mapping techniques, first aid and CPR training, hunter safety and boating safety, organizations and agencies, and careers in natural resource management.

**FOR-131, Forest Measurements****3 Credits**

This course introduces basic land and tree measurement equipment and mapping techniques. Emphasis is placed on developing skills for land, tree, and log measurements. Upon completion, students should be able to accurately use land and tree measurement equipment.

**FOR-123, Forest Botany****3 Credits**

This course introduces the structures and processes of forest plants. Emphasis is placed on dissection and direct examination of roots, shoots, and leaves. Upon completion, students should be able to identify plant parts and understand their functions.

**FWL-124 Wildlife Botany****3 Credits**

This course introduces the classification, physiology, and morphology of plants as needed in fish and wildlife management. Emphasis is placed on plant structures, reproduction, growth, and the economic and ecological importance. Upon completion, students should be able to demonstrate knowledge of the plant kingdom.

**FWL 126 Wildlife Ornithology****3 Credits**

This course includes the biology, classification, recognition, distribution, and management of game and non-game birds. Topics include anatomy, physiology, morphology, ecology, behavior, identification, and taxonomy with emphasis on waterfowl and upland game species. Upon completion, students should be able to identify various avian species and demonstrate a knowledge of their biology, ecology, and management.

**FOR-173, Soils & Hydrology****3 Credits**

This course covers concepts of soils and water including physical and chemical soil properties. Emphasis is placed on soil sampling, identification, plant-site relationships, water movement, and properties. Upon completion, students should be able to relate soil and water characteristics to forest growth and water quality.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800****3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities

**HIS 102– History of Nigeria from 1800 to the present****3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism



and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**FOR-215 Introduction to GIS/GPS**

**3 Credits**

This course introduces geographic information systems and global positioning devices. Emphasis is placed on the use of existing hardware and software to create and update computer generated maps. Upon completion, students should be able to understand the uses and limitations of GIS and GPS devices in forestry applications.

**FOR-225 Silvics & Silviculture**

**4 Credits**

This course covers the establishment, development, care, and harvesting of forest stands. Emphasis is placed on the application of various techniques used to control stand establishment, composition, and growth. Upon completion, students should be able to understand and apply appropriate forest stand improvement techniques.

**FWL-212 Wildlife Policy and Law**

**1 Credits**

This course includes laws, policies, and jurisdiction of natural resources. Topics include policy and law; game, non-game and endangered species; public relations and cultural aspects of natural resource management; and law enforcement procedures. Upon completion students should be able to describe and assess the influences of policies, laws, and society on natural resource management.

**FWL-224 Ichthyology.**

**2 Credits:**

This course introduces fresh and saltwater fish species. Emphasis is placed on identification, biology, and ecology of fishes. Upon completion, students should be able to recognize sport, commercial, and environmentally unique fish species.

**FOR-212, Forest Surveying & Aerial Interpretation.**

**3 Credits**

This course covers the basic concepts of plane surveying and aerial photo interpretation. Emphasis is placed on boundary location and acreage determination both on the ground and through aerial photographs. Upon completion, students should be able to confidently use basic surveying equipment and aerial photographs for forest land measurements.

**Prerequisites** Successful completion of FOR-131 with a grade of C or better.

**FWL-252 Wildlife Mgnt Techniques**

**4 Credits**

This course takes an applied approach in covering the methods commonly used in wildlife population management. Topics include identification, measurement of population parameters, wildlife damage management, collection of age, sex, and reproductive data, radio telemetry, and investigations into causes of mortality. Upon completion students should understand and administer common population management techniques.

**FWL-254 Habitat Manipulation****3 Credits**

This course is a study and application of management practices beneficial to wildlife. Emphasis is placed on methods for increasing quality food production, developing water sources, increasing cover requirements, and improving wetlands. Upon completion students should develop, interpret, and execute management plans to establish, maintain, and improve quality habitat.

**Prerequisites** Successful completion of FOR-121, FOR-173 FWL-142 FWL-126 FWL-222 with a grade of C or better . **Corequisites** FWL-252

**FWL-242 Fish Pond Management****3 Credits**

This course covers the management of fish ponds. Emphasis is placed on the techniques used to maintain a healthy and productive pond for commercial, sport and recreation fishing. Upon completion students should be familiar with pond management techniques as well as and management techniques for various fish species.

**FWL 204 Internship****3 Credits**

Focuses on the application and reinforcement of wildlife technology skills in a live work situation. Students are acquainted with occupational responsibilities through job training and are provided with insights into wildlife management applications. Emphasis is placed on problem solving, interpersonal skills, wildlife management, and professional development

**FWL-232Terrestrial Ecology****3 Credits**

This course introduces a wide variety of terrestrial life forms and habitats. Emphasis is placed on the biotic and abiotic factors affecting wildlife species, life history patterns, populations, species interactions, biodiversity, basic statistics, and the longleaf pine ecosystem. Upon completion, students should be able to explain the relationships between plants and animals, apply various floral and faunal sampling methods, and understand statistical applications.

**FWL-234Aquatic Ecology****3 Credits**

This course introduces a wide variety of aquatic life forms and habitats. Topic include the river basins, water quality testing and biological monitoring, stream ecology, freshwater invertebrates, fish and plants of importance in fishery management, and conservation. Emphasis is placed on freshwater invertebrates, fish and plants of importance in fishery management, Upon completion, students should be able to sight identify key invertebrates and fishes and be familiar with aquatic plants and habitats.

**FWL 214 Plantation Operations****2 Credits**

This course provides a focus on operations for students interested in managing wildlife on private plantations in the Southeast. Topics include guiding techniques, facility and grounds maintenance, dog handling and kennel operations, hospitality, and interpersonal relations.

**FOR-275 Natural Resources Issues****1 Credits**

This course provides an opportunity to explore natural resource topics of common interest. Emphasis is placed on special topics and organized field trips to expand student knowledge. Upon completion, students should be able to demonstrate an understanding of the issues explored.

**COM 111 Fundamentals of Public Speaking****3 Credits**

This course will introduce students to the theoretical frameworks and practical application of public speaking by integrating conceptual themes of rhetoric, stylistic organization, delivery, evaluative assessment, and argumentation.

**Prerequisite:** Successful completion of ENG 101 with a grade of “C” or higher

**FWL 222 Wildlife Mammalogy****3 Credits**

This course includes the biology, classification, recognition, distribution, and management of game and non-game mammals. Topics include identification, biology and ecology, behavior, collection of age, sex, and reproduction data, and management. Upon completion, students should be able to identify various mammalian species and demonstrate a knowledge of their biology, ecology, and management.

**HIS 201 History of Lagos up to the 20th Century****3 Credits**

The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.

**ENVIRONMENTAL SCIENCE, AS**

The Environmental Science Program, leading to an Associate of Science Degree, is designed for the student desiring entry level positions in environmental science, green or white collar jobs, natural resources, resource management, or for those students transferring to a four-year institution with the desire to complete a Bachelor of Science Degree in Environmental Science. Completed course work also may lead to other fields in biological sciences. Field work, an internship and a portfolio of the student's work will be required for completion of the Associate of Science Degree in Environmental Science.

**Upon successful completion of the program, the graduate will have:**

- Critical Thinking: demonstrate critical thinking skills in relation to environmental affairs
- Communication: demonstrate knowledge and application of communication skills and the ability to write effectively in a variety of contexts
- Interdisciplinary Synthesis: demonstrate an ability to integrate the many disciplines and fields that intersect with environmental concerns
- Ecological Literacy: demonstrate an awareness, knowledge, and appreciation of the intrinsic values of ecological processes and communities
- Sustainability: demonstrate an integrative approach to environmental issues with a focus on sustainability

1 <sup>st</sup> Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO114	Principles of Biology I	4
EVS101	Introduction to Environmental Science	4
MAT120	College Algebra	4
ENG101	English Composition I	4
	Total Semester Credit Hours	16

2 <sup>nd</sup> Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO115	Principles of Biology II	4
ENG102	English Composition II	3
EVS102	Environmental Sustainability	3
MAT128	Statistics	3
PSY101	Introduction to Psychology	3
	Total Semester Credit Hours	16

1 <sup>st</sup> Summer		
Course Code	Course Title	Credit Units/Hours
HIS 101 or	History of Nigeria – from the Earliest Times to 1800	3
HIS 102	History of Nigeria from 1800 to the present	3
HIS 102–	History of Nigeria from 1800 to the present	3
	Total Semester Credit Hours	6

3 <sup>rd</sup> Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
EVS 103	Advanced Field Biology	4

CHM101	Introduction to Chemistry	4
EVS106	Environmental Principles of Water Resources	4
EVS201	Current Issues in Environmental Science Seminar	2
MAT121	College Trigonometry	3
	Total Semester Credit Hours	17

4 <sup>th</sup> Semester (Sophomore))		
Course Code	Course Title	Credit Unit/ Hours
EVS107	Environmental Geology	3
EVS108	Environmental and Natural Resources Policy	3
EVS202	Environmental Soil Biology	4
BIO209	Critical Thinking and Analysis in the Sciences	3
EVS206	Global Perspectives in Alternative Energy Sources	3
	Total Semester Credit Hours	16

### **BIO-121. Principles of Modern Biology I**

**3 Credits**

An introduction to concepts of modern biology for students majoring in biology and other sciences. Topics covered include the origin of life, basic biochemistry, cell structure and function, energetic, reproduction and heredity, molecular genetics, and evolution. Four hours of lecture and three hours of laboratory per week. Offered every fall semester. Required of all Biology majors.

### **BIO 114 - Principles of Biology I LAB**

**1 Credit**

This introductory course provides an overview of the basic principles of biology including the structure and function of the cell, cellular respiration, photosynthesis, mitosis, meiosis, genetics and evolution. Lab experiments are designed to teach basic scientific skills, and to reinforce the topics covered during BIO 104 lectures. This course is designed to prepare students for more advanced courses in biology.

**Co-requisite(s):** BIO 104

### **BIO-122. Principles of Modern Biology II**

**4 Credits**

An introduction to biological diversity and mammalian structure and function for science majors, usually taken as a continuation of BIO-121. Topics include organismal classification, a survey of biological diversity (including characteristics, ecology, phylogenetic relationships, and economic and biomedical uses) of microbes, plants, and animals, and an overview of the mammalian body addressing the form and function of key organ systems. Dissections of specimens are required in the laboratory portion of this course. Four hours of lecture and three hours of laboratory per week. Offered every spring semester. Required of all Biology majors.

### **EVS 101 - Introduction to Environmental Science**

**3 Credits**

Introduction to the relationship of humans and the environment. Selected aspects of current thinking and research concerning the impact of industrialization and urbanization on

environmental quality, including the population explosion; the potential decline of the affluent society by the depletion of natural resources; the pollution of air, land surface and water; the public agencies and policies designated to solve environmental problems.

**MAT120      College Algebra      3 Credits**

This course is designed to strengthen and increase the understanding of basic algebraic concepts before a student undertakes advanced study in mathematics. Topics include algebra of the real numbers, algebraic, exponential, and logarithmic functions and their graphs, systems of equations, inequalities, and absolute value.

**ENG 101 - English Composition I      3 Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

**ENG 102 - English Composition II      3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed through students' writing. Research skills and documentation will be introduced.

**Pre-requisites:** Successful completion of ENG 101 with a grade of C or better.

**EVS 102      Environmental Sustainability      3 Credits**

This course surveys the major components of ecosystems and the structure and dynamics of populations and communities. These components are then integrated and applied from a sustainability perspective to environmental issues including human population growth, land, water and air resource management and use, conservation of biodiversity and energy sources and use.

**MAT128      Statistics      3 Credits**

This course will cover data analysis including probability, distributions, sampling, hypothesis testing, confidence intervals, regression analysis, and nonparametric analysis.

**PSY 101      Introduction to Psychology      3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

**HIS 101 – History of Nigeria – from the Earliest Times to 1800      3 Credits**

This course is a survey of the origins, migrations and settlements of various Nigerian peoples in their Kingdoms and States. The course also highlights historical developments

in the Nigerian regions during this period including state formation and inter-group relations in the areas of political, religious, economic and sociocultural activities.

**HIS 102– History of Nigeria from 1800 to the present**

**3 Credits**

The course examines some major developments including internal and external factors which brought the Nigerian communities into a state. The course also discusses the Sokoto Jihad; the fall of Oyo Empire and the Yoruba Civil Wars; the Slave Trade, the Abolition of the Slave Trade and European penetration of the hinterland; the establishment of Colonial rule/Amalgamation; and the Effects of World War I; the political and economic structure of colonial rule in the inter-war years; the World War II and its aftermaths; Nationalism and Independence; The First Republic and its collapse; the Military Regimes; the Second Republic; the Buhari/Idiagbon years; the Babangida years and the Aborted Third Republic; the Interim National Government; the Abacha and Abubakar regimes; and the Emergence of the Fourth Republic.

**EVS 107      Environmental Geology**

**3 Credits**

This course examines the premise that "our society exists by geologic consent subject to change without notice" by studying a number of important geologic processes and the hazards and/or resources they present to individuals, society, and the natural environment. Specific examples are emphasized during lectures, discussions, demonstrations, and multimedia presentations. Cost/benefit considerations, hazard mitigation concepts, and economic and political ramifications also are presented.

**EVS 103      Advanced Field Biology**

**4 Credits**

The goals of this course are two-fold: first, to give participants advanced training in field techniques important to primate conservation, biodiversity assessment and research, and second, to expose them to a thriving but highly threatened ecosystem with high levels of endemism of plants and wildlife. This course emphasizes field exercises and learning over classroom-based lectures, and students will also read selected literature on applied tropical biology research and primate conservation.

**CHM101      Introduction to Chemistry**

**4 Credits**

Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for allied health students and for students who are not science majors.

**EVS 106      Environmental Principles of Water Resources**

**4 Credits**

Fundamental principles of water resources. Basic concepts and strategies in the study of water, the current focus on water pollution and water purification. Topics include ground water, surface water, water quality, water purification, and water pollution. Presentation of ongoing studies related to work of earth scientists.

**MAT121      College Trigonometry      3 Credits**  
Topics include trigonometric functions, right triangle trigonometry, radian measure and circular functions, identities, equations, inverse functions, laws of cosines and sines. Optional topics may include complex numbers, vectors and polar coordinates.

**EVS 108      Environmental and Natural Resources Policy      3 Credits**  
In this course, we address the description and explanation of fundamentals and theory to environmental and natural resources. This includes issues related to the extraction, exploitation, planning and management of resources. A worldview regarding resources is both context specific and individual-specific. The approach of the course, meanwhile, is inter-disciplinary, and draws upon the geographic sub-disciplines of planning, management, environmental assessment, etc. to flesh out the concerns and debates.

**EVS201      Current Issues in Environmental Science Seminar      2 Credits**  
Provides exposure to current scientific research and policy initiatives. Includes presentations by researchers, discussion of recent literature, and participation in educational workshops.

**EVS 202 Environmental Soil Biology      3 Credits**  
Soil biological processes are fundamental to life on land. This course will introduce basic ecological concepts about soil biodiversity, decomposition, nutrient cycling, and plant-soil interactions to upper level undergraduate and graduate students.

**BIO209      Critical Thinking and Analysis in the Sciences      3 Credits**  
The course touches upon a wide range of reasoning skills, from verbal argument analysis to formal logic, visual and statistical reasoning, scientific methodology, and creative thinking. Mastering these skills will help you become a more perceptive reader and listener, a more persuasive writer and presenter, and a more effective researcher and scientist.

**EVS206 Global Perspectives in Alternative Energy Sources.      3Credits**  
In this course, students explore our wide range of traditional and renewable energy sources and how these options impact our environment and society. Students are also exposed to the complex and compelling ethical issues raised by global, national and local changes in how we produce and use energy.

**HIS 201 History of Lagos up to the 20th Century      3 Credits**  
The course examines the various traditions of origin of Lagos; traditional political institutions in Lagos; civil wars; the relationships between Lagos and its neighbors; Lagos' participation in slavery, slave trade, and "legitimate trade"; the British Consulate; the influx and the spatial distribution of immigrants; introduction of Islam and Christianity; Colonialism and social transformation and problems including crime; Students are expected to visit historical sites such as palaces, the point of no return in Badagry, museum etc.