Florida A&M University's College of Agriculture and Food Sciences
B.S. Degree in Agricultural Sciences (General) 31201

Freshman Year

ENC 1101 Freshman Comm. Skills I	3
AGG 2004 Intro to Agric. Sciences	1
SLS 1101 First Year Experience	2
Computer Literacy Course*)*	3
AMH 2091 Intro. to Afr. Am. His	3
BOT 1010 Elementary Botany	3
ENC 1102 Freshman Comm. Skills II	3
BSC 1010 General Biology I	3
BSC 1010L General Biology I Lab	1
Humanities Gen Ed Core	3
AGG 2050 Intro to Biotechnology	2
MAC 1105 College Algebra	3
Credits	**30**

Junior Year

HOS 3012C Horticulture Science	3
ANS 3006 Intro. to Animal Science	3
STA 2023 Intro to Prob. & Statistics I	3
Concentration 1	3
Concentration 2	3
ENY 3004 General Entomology	3
Concentration 1	3
Concentration 2	3
Elective Ag Sci. Core Course	3
Free Elective	3
Credits	**30**

Sophomore Year

ECO 2013 Principles of Economics 1	3
CHM 1025 Fund. of Chemistry	4
BSC 1011 General Biology II	2
BSC 1011 General Biology II Lab	2
MAC 1114 Algeb. & Trigon. Functns	3
CHM 1045 General Chemistry 1	3
CHM 1045 General Chemistry 1 Lab	1
Humanities Gen Ed Elective	3
Free Elective	3
AEB 2104 Economics of Agriculture	3
FOS 3042 Intro. to Food Science	3
Credits	**30**

Senior Year

Elective Ag Sci. Core Course	3
Elective Ag Sci. Core Course	3
Concentration 1	3
Concentration 2	3
Free Elective	3
Elective Ag Sci. Core Course	3
Free Elective	3
Concentration 1	3
Concentration 2	3
Free Elective	3
Credits	**30**
Total Credits	**120**

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This BS in Agricultural Sciences Degree is designed to expose the graduate to all aspects of agriculture and permit concentrations in two approved areas. It has a defined and required Agricultural Science core and grants the student a choice of two concentration areas.

The degree consists of:

(1) 18 Credits of Core Agricultural Science courses drawn from the Agribusiness, Animal Science, Entomology, Food Science, and Plant Science disciplines in the College.

(2) 12 Credits of Elective Agricultural Science Core courses with courses drawn from all majors.

(3) 38 Credits of General Education courses including two natural science courses with labs

(4) 13 credits of designated courses, an SLS course, 2 science courses with labs, and a statistics course.

(5) 24 credits of courses in two areas of concentration

(6) 15 credits of Free Electives which may be used to take prerequisite courses or any other course.

The 18 credit hours of compulsory Agricultural Science Courses are:

AEB 2104 Economics of Agriculture **3 credits**

ANS 3006 Introduction to Animal Science **3 credits**

AGG 2004 Introduction to Agricultural Sciences **1 credit**

AGG 2050 Introduction to Biotechnology **2 credits**

ENY 3004 General Entomology **3 credits**

FOS 3042 Introduction to Food Science **3 credits**

HOS 3012C Horticultural Sciences **3 credits**

The 12 credit hours of Elective Agriculture Science Core courses must be drawn from the following courses:

ABE 1002 Engineering Terminology &Concepts **1 credit**

ABE 1010 Introduction to Biological Systems Engineering **2 credits**

ABE 3650 Engineering Properties of Biological Materials **3 credits**

AGR 3210 Field Crop Science **3 credits**

AGR 3232 Pasture and Range Management **3 credits**

ANS 3244 Beef Cattle Production **3 credits**

ANS 3264 Swine Science **3 credits**

ATE 1001 Introduction to Veterinary Technology **1 credit**

ATE 1741 Veterinary Medical Terminology **1 credit**

ATE 2111 Anatomy of Farm and Companion Animals 1 **3 credits**

ATE 2111L Anatomy of Farm and Companion Animals Lab **1 credit**

BOT 1010L Elementary Botany Lab **1 credit**

ENY 2001E Insects, People & Environment **3 credits**

ENY 3004L General Entomology Lab **1 credit**

ENY 3701C Forensic Entomology **3 credits**

FOR 3093 Forestry in Rural &Urban Environment **3 credits**

FOS 3042L Introduction to Food Science Lab **1 credit**

FOS 2002 Food and People **3 credits**

HUN 2401 Nutrition **3 credits**

GIS 1040 Introduction to GIS **3 credits**

SWS 3022 Nature and Properties of Soils **3 credits**

SWS 3022L Nature and Properties of Soils Lab **1 credit**

SWS 3211 Soil and Water Conservation **3 credits**

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Concentrations can be completed by doing 12 approved credit hours in the identified area. Currently the approved concentrations in this degree are:

Agribusiness	Animal Science	Biological Systems Engineering	
Entomology	Food Science	Plant Science	Soil Science

CONCENTRATION IN AGRIBUSINESS

The Agribusiness concentration offers students the basic courses in applied economics, business management with emphasis in agricultural industry. The student will have some preparation for a career in many of the agricultural-oriented business and financial institutions.

Student take any 12 credits from the following 24 credits of Agribusiness Courses

AEB 3143 - Agricultural Finance	**3**	**AEB 4152** - Farm Business Analysis	**3**
AEB 3300 - Marketing of Agric. Prods	**3**	**AEB 4261** - Agricultural Policy	**3**
AEB 3315 – Agric. Comm. Marketing & Risk Management	**3**	**AEB 4524** Quantitative Methods of Agribusiness Decisions	**3**
AEB 3450 Intro. Nat. Res. & Envrl. Econ	**3**	**AEB 4816** - Survey Research Method for Economists	**3**

CONCENTRATION IN ANIMAL SCIENCE

The Animal Science concentration offers students the basic courses so that they may obtain an overview of the biology, production, management and care of animals which permits the safe, nutritious and economical production of animals for food and recreational purposes, without compromising the environment or jeopardizing the health and wellbeing of the animals and the supporting communities.

Students take any 12 credits from the following 25 credits of Animal Science Courses

ANS 3244 Beef Cattle Production	**3**	**ANS 3614** Meats	**3**
ANS 3264 Swine Science	**3**	**ANS 384** Genetics of Domestic. Animals	**3**
ANS 3273 Small Ruminant Management	**3**	**ANS 4291C** Incubation & Breeding	**3**
ANS 3311 Reproduction. of Farm Animals	**3**	**ANS 4445** Animal Nutrition	**4**
ANS 3463 Feeds & Feeding	**3**	**VME 4117** Animal Sanitation and Disease Control	**3**

CONCENTRATION IN BIOLOGICAL SYSTEMS ENGINEERING

The Biological Systems Engineering concentration offers students the basic courses in Biological Systems. The student will get prepared for a career in many of the applied agricultural engineering sectors including but not limited to USDA, Timber Processing and Food Processing Industries

Mandatory Classes:

ABE 1002 Terminology & Concepts in Biological Engineering	**1**	**ABE 3650** Engineering Properties of Biological Materials	**3**
ABE 1010 Introduction to Biological Systems Engineering	**2**	**ABE 3614 & 3614L** Bio-Thermodynamics & Lab	**3**

Plus, one of the two following Courses:

ABE 3212 Nat. Res. Cons. Engineering	**3**		**ABE 4812** – Fd & Bioproc. Engineering	**3**

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CONCENTRATION IN ENTOMOLOGY

*The **Entomology** concentration offers students the basic courses which provide students with scientific knowledge of insects and their interactions with people and the environment. Students will gain a better understanding of crop protection, forensic science and productivity of the food and agricultural industries*

Students take any 12 credits from the following 23 credits of Entomology courses:

ENY 2001E Insects, People & Environment	**3**
ENY 2006E Global Integrated Pest Management.	**3**
ENY 2570 Prin. of Environmental Entomology	**3**
ENY 3004L General Entomology Laboratory	**1**

ENY 3661C Medical Entomology	**3**
ENY 3222 Gen. Household Pests, Rodents, and Control	**4**
ENY 3701C Forensic Entomology	**3**
ENY 4150 Systematic Entomology	**3**

CONCENTRATION IN FOOD SCIENCES

This concentration offers students the basic courses to obtain an overview of the application of science to foods and the changes that occur in them as humans use them in a safe and sustainable manner to support enjoyment and life.

Students take any 12 credits from the following 26 credits of Food Science courses:

FOS 2002 Food and People	**3**
FOS 3410 Principles of Food Engineering	**3**
FOS 4222C Food Microbiology & Safety	**4**
FOS 4321C Food Analysis	**4**

FOS 4425 Food Manufactg & Storage	**3**
FOS 4454C Food Fermentation	**3**
HUN 2401 Nutrition	**3**
HUN 3510 Community Nutrition	**3**

CONCENTRATION IN PLANT SCIENCES

*The **Plant Science** concentration offers students the basic courses so that they may obtain an overview of the application of science to plants including growth, reproduction, evolution, and adaptation, as well as the use of plants for food, fiber, and ornamental purposes*

Students take any 12 credits from the following 22 credits of courses in the Plant Sciences:

AGR 3210 Field Crop Science	**3**
AGR 3232 Pasture and Range Management	**3**
AGR 4512 Plant Ecology	**3**
AGR 4430C GIS and Rem. Sensing	**3**

BOT 1010L Elementary Botany Lab	**1**
BOT 3503 Plant Physiology	**3**
FOR 3093 Forestry. in Rural & Urb. Env.	**3**
GIS 1040 Introduction to GIS	**3**

CONCENTRATION IN SOIL SCIENCE

*The **Soil Science** concentration offers students the basic courses so that they may obtain an overview of the formation, classification, mapping, physical, chemical, biological, and fertility properties of soils and their relation to the proper use and management of soils.*

Mandatory Class: SWS 3022 – Nature and Properties of soils **3 credits**
Plus, nine credits from any of the following courses in Soil Science listed below:

SWS 3022L Nature and Properties of Soil Lab	**1**
SWS 3211 Soil and Water Conservation	**3**
SWS 4131C Fertility and Fertilizers	**3**
SWS 4427C Soil and Plant Analysis	**3**

SWS 4602C Environmental Soil Physics	**3**
SWS 4732C Soil Survey	**3**
AGR 4430 – GIS & Remote Sensing	**3**

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