

# College of Agriculture

R.L. GUTHRIE, *Dean*  
W.E. HARDY JR., *Associate Dean*

THE COLLEGE OF AGRICULTURE prepares its students for careers in the agricultural sector and related professions as well as admission to graduate school, law, and health related professional schools, and favors success in whatever field they choose. With a strong emphasis in living science, challenging science-based curricula prepare graduates for a variety of opportunities throughout a global food, agricultural and natural resource system. Graduates are prepared to become productive global citizens and prepared to address challenges of providing an abundant, relatively safe, affordable food, fiber and renewable bio-energy system while protecting environmental and water resources. Courses provide foundational knowledge in contemporary science and culturally relevant subject areas. Many of the basic science courses taken in the freshman and sophomore years serve as a foundation for additional basic and applied coursework in a specific major during the junior and senior year. The college's friendly atmosphere fosters strong academic, engaged learning environments and student development around life-skills and international issues.

Curricula are offered in agricultural business and economics, agricultural communications, agronomy and soils, animal sciences, fisheries and allied aquacultures, horticulture and poultry science. The College of Agriculture also furnishes the subject matter training in agriculture for the curricula of biosystems engineering and agriscience education. Students who wish to major in other agricultural fields should consult with the college dean.

Employment opportunities for graduates with expertise gained in the majors are expected to remain strong for the next five years. Possible careers include: agricultural economists, agricultural engineers, agronomists, animal nutritionists, aquaculturalists, biochemists, biological engineer, biometrician, botanist, business managers, cell biologist, climatologist, educators, extension specialists, entomologists, environmental scientist, farm services, fisheries scientist, florist, food systems and safety worker, golf course horticulturalist, poultry scientist, molecular biologist, plant pathologist, plant physiologist, quality assurance worker, rural sociologist, science writer, soil scientist, toxicologist, turf scientist / specialists, plant scientists and many more.

Transfer credits for agricultural subjects not considered equivalent to those required in the chosen curriculum may be substituted for elective credit; however, duplication of credit will not be allowed. Equivalence of agricultural subjects will be determined by the Dean's Office; however, students may also obtain transfer credit on the basis of validating examinations. Arrangements for validating examinations must be made with the dean of Agriculture in the first term of enrollment in the College of Agriculture at Auburn and the examinations must be completed before the middle of the second term. Transfer credit for courses which are upper-division courses at AU will not be accepted from two-year colleges.

## Pre-Veterinary Medicine and Pre-Professional

Curricula within the college enable students to be advised to complete requirements for admission to health related professional schools. It is possible to gain admission to the College of Veterinary Medicine upon completion of the minimum requirements listed below. Students may declare an option upon admission to the College of Agriculture and must declare an option by the end of their freshman year. If students are admitted to the College of Veterinary Medicine after the completion of all the requirements in the first three years of the option, they may obtain a bachelor of science degree in the option after completion of the freshman year in the College of Veterinary Medicine.

The minimum requirements (74 semester hours) for admission to the College of Veterinary of Medicine, Auburn University are incorporated in the first three years of the options listed under the following curricula: animal sciences, fisheries and allied aquacultures and poultry science.

English Composition (6), Mathematics (3), Core History (6), Philosophy (3), PHYS 1500 and, PHYS 1510 (8), Literature (6), Social Studies (6), BIOL 1020 & 1030 (8), CHEM 1030 & 1031 and CHEM 1040 & 1041 (8), CHEM 2070 & 2071, and CHEM 2080 & 2081 (8), Fine Arts (3), BCHE 3200 (3), Scientific Electives (6).

See also the curriculum in Pre-Veterinary Medicine (PVET), College of Science and Mathematics.

## Dual-Degree Program with Engineering

This program gives students the opportunity to receive two baccalaureate degrees - one in agriculture and one in engineering. Although the program was developed primarily for students desiring a combination of a biological sciences program with an engineering program, it does not preclude the consideration of other Agriculture-Engineering combinations.

In general, students will be enrolled in the College of Agriculture for approximately three years and in the Samuel Ginn College of Engineering for approximately two years. During the first three years, the students, should take those mathematics, physics and chemistry courses necessary to allow them to transfer to the Samuel Ginn College of Engineering. Additionally, before transferring to the Samuel Ginn College of Engineering, they should have completed approximately three-fourths of the total hours required by the College of Agriculture for the awarding of the degree.

To become dual-degree candidates under this program, students must have grade-point averages which indicate the likelihood of satisfactory completion of Samuel Ginn College of Engineering degree requirements and recommendation from the dean of the College of Agriculture. The recommendation should be sought one term before the expected transfer to the Samuel Ginn College of Engineering.

It is also possible for qualified students to transfer to the Samuel Ginn College of Engineering following the junior year with the intent of seeking a master's degree rather than a bachelor's degree in one of the engineering disciplines. Consult the Engineering Dean's Office concerning this option.

## Minors

### AGRIBUSINESS MINOR

18 semester hours in minor (minimum 9 hours at 3000 level or above)

<b>Courses required</b>		<b>Cr. Hr.</b>
ACCT	2910 Fundamentals of Accounting .....	3
AGEC	4040 Agricultural Finance .....	3
AGEC	4000 Principles of Agribusiness Mngt .....	OR
AGEC	5010 Farm Management .....	OR
AGEC	5100 Agribusiness Management .....	3

Elective Courses - See advisor for approved course listing.

### AGRONOMY AND SOILS MINOR

17 semester hours in minor (minimum 9 hours at 3000 level or above)

<b>Courses required</b>		<b>Cr. Hr.</b>
AGRN	1000 Basic Crop Science .....	4
AGRN	2040 Basic Soil Science .....	4

Elective Courses - See advisor for approved course listing.

### ANIMAL SCIENCES MINOR

15 semester hours in minor (minimum 9 hours at 3000 level or above)

<b>Courses required</b>		<b>Cr. Hr.</b>
ANSC	1000 Introduction to Animal Sciences.....	4

Elective Courses - See advisor for approved course listing.

### ENTOMOLOGY MINOR

15 semester hours in minor (minimum 9 hours at 3000 level or above)

<b>Courses required</b>		<b>Cr. Hr.</b>
ENTM	3040 General Entomology .....	4

Elective Courses - See advisor for approved course listing.

**FISHERIES AND ALLIED AQUACULTURES MINOR**

Junior (03) classification is required  
15 semester hours in minor (minimum 9 hours at 3000 level or above)

Courses required		Cr. Hr.
FISH 2100	Introduction to Fisheries Science	6
FISH 5210	Principles of Aquaculture	3
FISH 5220	Water Science	3
FISH 5250	Aquaculture Production	4
FISH 5320	Limnology	4
FISH 5380	Ichthyology	4
FISH 5410	Introduction to Fish Health	2
FISH 5510	Fisheries Biology and Management	3

**AGRICULTURAL LEADERSHIP STUDIES**

18 semester hours in minor (minimum 9 hours at 3000 level or above)

Courses required		Cr. Hr.
AGRI 3800	Agricultural Leadership Development	2
AGRI 5840	Adv. Agricultural Leadership Development	3
ANSC 4800	Issues in Agriculture	2
POLI 2100	State and Local Government	3

Elective Courses - See advisor for approved course listing.

**NATURAL RESOURCES ECONOMICS AND ENVIRONMENTAL POLICY MINOR**

15 semester hours in minor (minimum 12 hours at 3000 level or above)

Courses required		Cr. Hr.
ECON 2030	Macroeconomics	3
AGEC 5090	Resource Economics I	3
AGEC 4120	Env & Natural Res Economics	3

Elective Courses - See advisor for approved course listing.

**PLANT PATHOLOGY MINOR**

15 semester hours in minor

Courses required		Cr. Hr.
PLPA 3000	General Plant Pathology	4

Elective Courses - See advisor for approved course listing.

**POULTRY SCIENCE MINOR**

15 semester hours in minor (minimum 12 hours at 3000 level or above)

Courses required		Cr. Hr.
POUL 1000	Introductory Poultry Science	3
POUL 3030	Commercial Poultry Production	4

Elective Courses - See advisor for approved course listing.

**RURAL AND COMMUNITY DEVELOPMENT MINOR**

15 semester hours in minor (minimum 9 hours at 3000 level or above)

Courses required		Cr. Hr.
RSOC 3620	Community Organization	3
SOCY 3700	Methods of Social Research	3

Elective Courses - See advisor for approved course listing.

**Agricultural Business and Economics (AGEC)**

The curriculum provides broad technical training and a strong liberal arts and business background to prepare students for careers in a wide array of agribusiness and related fields.

Students may choose a general program of study, or select one of four career tracks that provides more specialized training in: (1) Agribusiness Management and Marketing that emphasizes training in business management, marketing/sales, and finance, (2) Farm Management that emphasizes management and decision-making skills at the farm level, (3) Natural Resources Management that trains students in resource issues and effective utilization of those resources, or (4) Community and Economic Development that emphasizes the roles of public and private entities in the developmental process. The curriculum is designed to help students reach their academic goals and prepare them for a rewarding career.

**Curriculum in Agricultural Business & Economics**

FR	F	S		F	S
ECON		2020	Principles of Microeconomics	**	3
ENGL	1100	1120	English Composition I & II		3
HIST	1210	1220	Technology & Civilization I & II		3
MATH	1680	1690	Calculus w/Business Applications I & II		3
SOCY	1000		Sociology: Global Perspective		**
			Core Fine Arts		**
<b>AGEC</b>		<b>2100</b>	<b>Microcomputer Applications</b>	<b>**</b>	<b>3</b>
				<b>16</b>	<b>15</b>
<b>SO</b>					
BIOL	1020		Principles of Biology & Lab (1021)	4	**
BIOL		1030	Organismal Biology & Lab (1031)	**	4
<b>ECON</b>	<b>2030</b>		<b>Principles of Macroeconomics</b>	<b>3</b>	<b>**</b>
ENGL	2200	2210	World Literature I & II		3
PHIL			1020 Ethics or 1040 Business Ethics		**
ACCT	2110	2210	Financial & Managerial Accounting		3
STAT		2610	Statistics for Bus & Economics OR	**	3
STAT		2510	Statistics for Biology & Health Sci	**	**
COMM		1000	Public Speaking	**	3
				<b>16</b>	<b>16</b>
<b>JR</b>					
ECON	3020		Intermediate Microeconomics	3	**
ENGL	3080		Business Writing	3	**
<b>AGEC</b>	<b>3010</b>		<b>Agribusiness Marketing</b>	<b>3</b>	<b>**</b>
<b>AGEC</b>	<b>4040</b>		<b>Agricultural Finance</b>	<b>**</b>	<b>3</b>
<b>AGEC</b>	<b>4950</b>		<b>Undergraduate Seminar</b>	<b>**</b>	<b>0</b>
			Agricultural Elective	4	4
			Career Track Elective	2	7
				<b>15</b>	<b>14</b>
<b>SR</b>					
<b>AGEC</b>	<b>4070</b>		<b>Agricultural Law</b>	<b>3</b>	<b>**</b>
<b>AGEC</b>	<b>4300</b>		<b>Agricultural Trade &amp; Policy</b>	<b>**</b>	<b>3</b>
<b>AGEC</b>	<b>5010</b>		<b>Farm Management</b>	<b>**</b>	<b>3</b>
<b>AGEC</b>	<b>5030</b>		<b>Agricultural Prices</b>	<b>**</b>	<b>3</b>
<b>AGEC</b>	<b>5090</b>		<b>Resource Economics I</b>	<b>3</b>	<b>**</b>
<b>AGEC</b>	<b>5100</b>		<b>Agribusiness Management</b>	<b>3</b>	<b>**</b>
			Career Track Elective	5	5
UNIV	4AA0		AG1 Undergraduate Graduation	**	0
				<b>14</b>	<b>14</b>

**TOTAL HOURS - 120**

Career Track and Agricultural Electives: see advisor for approved list.

**Agricultural Communications (AGCO)**

The fast-paced world of global agriculture calls for adaptive communicators able to stay on the cutting edge of change and technology. The curriculum provides systematic study and development of skills in all forms of effective communication, writing, speaking, journalism, media and public relations, leadership, photography, electronic media, instructional design, graphic and Web-design, information technology, publishing, research, and marketing. Prepared with a foundation of biological, chemical sciences and strong science-based agricultural courses, AGCO graduates are highly sought after for careers which extend knowledge about agriculture, natural resources, and life and human sciences to people worldwide. Possible careers include: writers, database programmers, photographers, graphic designers, Web developers, videographers, electronic/digital media producers, marketing specialists, public relations practitioners, publishers, researchers, distance education specialists, educators and managers and editors of magazines and newsprint. Graduates work throughout corporate America, institutions of higher learning, government agencies, medical technology operations, lobbyist groups and research organizations in the public and private sector. This combination of technical subject matter knowledge and communication skills is not found in other curricula.

**Curriculum in Agricultural Communications**

FR	F	S		F	S
BIOL	1020		Principles of Biology & Lab (1021)	4	**
BIOL		1030	Organismal Biology & Lab (1031)	**	4
ENGL	1100	1120	English Composition I & II		3
MATH	1130		Pre-Calculus with Trigonometry		**
			Core History		3
			Core Social Science I	**	3
<b>JRNL</b>		<b>1100</b>	<b>Newspaper Fundamental</b>	<b>**</b>	<b>3</b>
				<b>13</b>	<b>16</b>



**Curriculum in Agronomy & Soils - Science Track**

FR	F	S	F	S
BIOL	1020		Principles of Biology & Lab (1021).....	4 **
BIOL		1030	Organismal Biology & Lab (1031).....	** 4
CHEM	1030	1040	Fundamentals Chemistry I & II.....	3 3
CHEM	1031	1041	Fundamentals Chemistry I & II Lab.....	1 1
ENGL		1100	English Composition I.....	** 3
MATH	1130	1610	Math.....	3 4
<b>AGRN</b>	<b>1000</b>		<b>Basic Crop Science.....</b>	<b>4 **</b>
			Elective.....	1 **
				<b>16 15</b>
<b>SO</b>				
ENGL	1120		English Composition II.....	3 **
ENGL		2200	World Literature I.....	** 3
HIST	1210	1220	Technology & Civilization I & II.....	3 3
			Core Social Science Group I.....	** 3
			General Electives.....	3 **
CHEM	2070		Organic Chemistry.....	3 **
CHEM	2071		Organic Chemistry Lab.....	1 **
CHEM		3050	Analytical Chemistry.....	** 3
CHEM		3051	Analytical Chemistry Lab.....	** 1
<b>AGRN</b>	<b>2040</b>		<b>Basic Soil Science.....</b>	<b>4 **</b>
				<b>14 16</b>

JR	F	S	F	S
ECON	2020		Microeconomics.....	3 **
ENGL	2210		World Literature II.....	3 **
BIOL	3100		Plant Biology.....	3 **
BIOL	3101		Plant Biology Lab.....	1 **
BIOL		3000	Genetics.....	** 4
PHYS	1500		General Physics I.....	** 4
PLPA		3000	General Plant Pathology.....	** 4
<b>AGRN</b>	<b>3120</b>		<b>Weed Science.....</b>	<b>4 **</b>
<b>AGRN</b>			<b>4010 or 4000.....</b>	<b>** 3</b>
<b>AGRN</b>		<b>4950</b>	<b>Senior Seminar.....</b>	<b>** 1</b>
				<b>14 16</b>

SR	F	S	F	S
			Core Philosophy.....	** 3
			Core Fine Arts.....	3 **
ENTM	4020		Economic Entomology.....	4 **
BIOL	3200		General Microbiology.....	4 **
<b>AGRN</b>		<b>5020</b>	<b>Nutrient Management.....</b>	<b>** 3</b>
			<b>Agronomy &amp; Soils Elective.....</b>	<b>4 4</b>
			<b>AGRN 5150 or BIOL 5120.....</b>	<b>** 4</b>
UNIV		4AA0	AG1 Undergraduate Graduation.....	** 0
				<b>15 14</b>

**TOTAL HOURS - 120**

Agronomy & Soils electives to be taken from courses approved by advisor.

**Curriculum in Agronomy & Soils - Turfgrass Track**

FR	F	S	F	S
BIOL	1020		Principles of Biology & Lab (1021).....	4 **
BIOL		1030	Organismal Biology & Lab (1031).....	** 4
CHEM	1030	1040	Fundamentals Chemistry I & II.....	3 3
CHEM	1031	1041	Fundamentals Chemistry I & II Lab.....	1 1
ENGL		1100	English Composition I.....	** 3
MATH	1130		Math.....	3 **
<b>AGRN</b>	<b>1000</b>		<b>Basic Crop Science.....</b>	<b>4 **</b>
<b>AGRN</b>		<b>2040</b>	<b>Basic Soil Science.....</b>	<b>** 4</b>
				<b>15 15</b>

SUMMER	F	S	F	S
ENGL	1120		English Composition II.....	3
HIST	1210		Technology and Civilization I.....	3
			Free Elective.....	3
	FLSP	1010	Spanish.....	4
				<b>13</b>

See advisor for approved list for Soils Electives, ECON/MNGT Electives, Plant Science Elective

SO	F	S	F	S
BIOL		3100	Plant Biology <b>OR</b> .....	** 3
HORT		3000	Growth & Dev of Hort Plants.....	** 3
HIST	1220		Technology & Civilization I & II.....	** 3
ENGL		2200	World Literature I.....	** 3
			Core Social Science Group I.....	** 3
MATH	1610		Calculus I.....	4 **
CHEM	2030		Organic Chemistry.....	3 **
ECON		2020	Microeconomics.....	** 3
<b>AGRN</b>	<b>3120</b>		<b>Weed Science.....</b>	<b>4 **</b>
<b>AGRN</b>	<b>3150</b>		<b>Turfgrass Management.....</b>	<b>** 4</b>
				<b>15 15</b>

JR	F	S	F	S
ENGL	2210		World Literature II.....	3 **
			Core Philosophy.....	3 **
			General Plant Pathology.....	4 **
<b>BSEN</b>	<b>3560</b>		<b>Turf Sys Irrig Design.....</b>	<b>4 **</b>
			<b>Soil Elective.....</b>	<b>3 **</b>
			Internship*.....	** **
				<b>16 0</b>
<b>SR</b>				
			Core Fine Arts.....	3 **
ACCT	2910		Fund of Accounting Principles.....	3 **
ENTM		4020	Economic Entomology.....	** 4
ENTM	5030		Insecticides.....	4 **
<b>AGRN</b>	<b>3920</b>		<b>Internship.....</b>	<b>3 **</b>
<b>AGRN</b>		<b>4950</b>	<b>Senior Seminar.....</b>	<b>** 1</b>
<b>AGRN</b>		<b>5160</b>	<b>Advanced Turfgrass.....</b>	<b>** 3</b>
<b>AGRN</b>		<b>5020</b>	<b>Nutrient Management.....</b>	<b>** 3</b>
			Plant Science Elective.....	3 3
			ECON/MNGT Elective.....	** 3
UNIV		4AA0	AG1 Undergraduate Graduation.....	** 0
				<b>16 17</b>

**TOTAL HOURS - 122**

\*Internship: spring semester junior year

**Animal Sciences (ANSC)**

The department offers four curriculum options. The Pre-Vet/Pre-Professional option (ANPV) provides students with a foundation in the biological and physical sciences for careers in emerging areas of animal biotechnology while satisfying requirements for application to Auburn's College of Veterinary Medicine, other professional schools or graduate school. The Production/Management option (ANPM) offers greater breadth in animal production management and agribusiness while retaining more electives hours for additional curriculum flexibility. The Equine Science option (ANEQ) allows students to focus on the sciences and practical skills required for a successful career in the horse industry, and by choosing, appropriate elective courses, will prepare students to apply to Auburn's College of Veterinary Medicine. The Muscle Foods option (ANMF) prepares students for quality assurance and for research and development careers in the food industry. Students may use electives to develop expertise in fields such as animal breeding, nutrition, reproduction, growth, behavior, equine science, and companion animals.

**Curriculum in Animal Sciences - Muscle Foods Option**

FR	F	S	F	S
ENGL	1100	1120	English Composition I & II.....	3 3
MATH	1130		Math.....	3 **
BIOL	1020		Principles of Biology & Lab (1021).....	4 **
BIOL		1030	Organismal Biology & Lab (1031).....	** 4
<b>CHEM</b>	<b>1030</b>	<b>1040</b>	<b>Fund of Chemistry I &amp; II.....</b>	<b>3 3</b>
<b>CHEM</b>	<b>1031</b>	<b>1041</b>	<b>Fund of Chemistry I &amp; II Lab.....</b>	<b>1 1</b>
<b>ANSC</b>		<b>1000</b>	<b>Introduction to ANSC.....</b>	<b>** 4</b>
<b>ANSC</b>	<b>1100</b>		<b>Orientation to ANSC.....</b>	<b>1 **</b>
				<b>15 15</b>

SO	F	S	F	S
ECON	2020		Principles of Microeconomics.....	3 **
ENGL	2200	2210	World Literature I & II.....	3 3
			Core Social Science Group I.....	3 **
			Core History.....	3 3
CHEM		2030	Organic Chemistry.....	** 3
BIOL	2500	2510	Anat Physiol I & II.....	4 4
STAT		2510	Statistics for Biol & Life Sciences.....	** 3
				<b>16 16</b>

JR	F	S	F	S
			Core Philosophy.....	3 **
			Core Fine Arts.....	3 **
COMM		1000	Public Speaking.....	** 3
ANSC	2700		Value-Based Mktg.....	2 **
BIOL	3000		Genetics.....	4 **
			MF Support**.....	** 3-4
			<b>ANSC Core I*.....</b>	<b>** 3-4</b>
<b>ANSC</b>		<b>3700</b>	<b>Muscle Foods.....</b>	<b>** 4</b>
<b>ANSC</b>		<b>3800</b>	<b>Careers in Animal Ag.....</b>	<b>** 1</b>
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry.....</b>	<b>3 **</b>
				<b>15 14-16</b>

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<b>SR</b>					
ANSC	3310		Intro. Meat Selection .....	2	**
ANSC	4700		Meat Processing .....	4	**
BIOL	3200		Microbiology .....	4	**
			ANSC Core II* .....	**	4
			MF Support** .....	4	**
			Free Electives .....	**	9-11
UNIV	4AA0		AG1 Undergraduate Graduation .....	**	0
				<b>14</b>	<b>13-15</b>

**TOTAL HOURS - 120**

\* ANSC Core I/II; choose two of these three courses; ANSC-3400, ANSC-3500, or ANSC-3600.  
 \*\* Muscle Foods (MF) Support courses; see your advisor or the advising check sheet for ANMF.

**Curriculum in Animal Sciences - Production Option**

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
ENGL	1100	1120	English Composition I & II .....	3	3
MATH	1130		Math .....	3	**
BIOL	1020		Principles of Biology & Lab (1021) .....	4	**
BIOL		1030	Organismal Biology & Lab (1031) .....	**	4
<b>CHEM</b>	<b>1030</b>	<b>1040</b>	<b>Fund of Chemistry I &amp; II .....</b>	<b>3</b>	<b>3</b>
<b>CHEM</b>	<b>1031</b>	<b>1041</b>	<b>Fund of Chemistry I &amp; II Lab .....</b>	<b>1</b>	<b>1</b>
<b>ANSC</b>		<b>1000</b>	<b>Introduction to ANSC .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>	<b>1100</b>		<b>Orientation to ANSC .....</b>	<b>**</b>	<b>4</b>
				<b>15</b>	<b>15</b>
<b>SO</b>					
ECON	2020		Microeconomics .....	3	**
ENGL	2200	2210	World Literature I & II .....	3	3
			Core Social Science Group I .....	3	**
			Core History .....	3	3
CHEM		2030	Organic Chemistry .....	**	3
BIOL	2500	2510	Anat Physiol I & II .....	4	4
STAT		2510	Statistics for Biol & Life Sciences .....	**	3
				<b>16</b>	<b>16</b>

<b>JR</b>					
BIOL	3000		Core Philosophy .....	3	**
			Genetics .....	4	**
<b>ANSC</b>		<b>3400</b>	<b>Animal Nutrition .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>		<b>3500</b>	<b>Animal Breeding .....</b>	<b>**</b>	<b>3</b>
<b>ANSC</b>	<b>3600</b>		<b>Reproductive Physiol .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>		<b>3800</b>	<b>Careers in Animal Science .....</b>	<b>**</b>	<b>1</b>
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry .....</b>	<b>3</b>	**
			Directed Elective .....	**	4
AGEC		4000	Agribus Management .....	**	3
				<b>14</b>	<b>15</b>
<b>SR</b>					
			Core Fine Arts .....	3	**
COMM	1000		Public Speaking .....	3	**
BIOL	3200		Microbiology .....	4	**
			Directed Elective .....	**	4
			Free Electives .....	5	10
UNIV	4AA0		AG1 Undergraduate Graduation .....	**	0
				<b>15</b>	<b>14</b>

**TOTAL HOURS - 120**

**Curriculum in Animal Sciences - Equine Science Option**

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
<b>ANSC</b>		<b>1000</b>	<b>Introduction to ANSC .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>	<b>1100</b>		<b>Orientation to ANSC .....</b>	<b>**</b>	<b>1</b>
BIOL	1020		Principles of Biology & Lab (1021) .....	**	4
BIOL		1030	Organismal Biology & Lab (1031) .....	**	4
<b>CHEM</b>	<b>1030</b>	<b>1040</b>	<b>Fund of Chemistry I &amp; II .....</b>	<b>3</b>	<b>3</b>
<b>CHEM</b>	<b>1031</b>	<b>1041</b>	<b>Fund of Chemistry I &amp; II Lab .....</b>	<b>1</b>	<b>1</b>
ENGL	1100	1120	English Composition I & II .....	3	3
MATH	1130		Math .....	3	**
				<b>15</b>	<b>15</b>
<b>SO</b>					
BIOL	2500	2510	Anat Physiol I & II .....	4	4
CHEM		2030	Survey of Organic Chemistry .....	**	3
ECON	2020		Microeconomics .....	**	3
ENGL	2200	2210	World Literature I & II .....	3	3
STAT	2510		Statistics for Bio/Health .....	3	**
			Core History .....	3	3
			Directed Elective .....	3	**
				<b>16</b>	<b>16</b>

<b>JR</b>					
<b>ANSC</b>	<b>3400</b>		<b>Animal Nutrition .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>	<b>3500</b>		<b>Animal Breeding .....</b>	<b>**</b>	<b>3</b>
<b>ANSC</b>	<b>3600</b>		<b>Reproductive Physiol .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>	<b>3800</b>		<b>Careers in Animal Ag .....</b>	<b>**</b>	<b>1</b>
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry .....</b>	<b>3</b>	**
BIOL	3000		Genetics .....	4	**
PHYS	1000		Foundations of Physics .....	4	**
			Core Social Science Group I .....	**	3
			Core Philosophy .....	**	3
				<b>15</b>	<b>14</b>

<b>SR</b>					
AGRNL	4010		Forage Production & Utilization .....	**	3
<b>ANSC</b>	<b>4050</b>		<b>Horse Production .....</b>	<b>**</b>	<b>4</b>
BIOL	3200		Microbiology .....	4	**
COMM	1000		Communication .....	3	**
			Core Art .....	3	**
			Directed Elective .....	2	4
			Free Electives .....	3	3
UNIV	4AA0		AG1 Undergraduate Graduation .....	**	0
				<b>15</b>	<b>14</b>

**TOTAL HOURS - 120**

**Curriculum in Animal Sciences Pre-Vet - Pre-Professional Option**

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
ENGL	1100	1120	English Composition I & II .....	3	3
MATH	1130		Math .....	3	**
BIOL	1020		Principles of Biology & Lab (1021) .....	4	**
BIOL		1030	Organismal Biology & Lab (1031) .....	**	4
<b>CHEM</b>	<b>1030</b>	<b>1040</b>	<b>Fund of Chemistry I &amp; II .....</b>	<b>3</b>	<b>3</b>
<b>CHEM</b>	<b>1031</b>	<b>1041</b>	<b>Fund of Chemistry I &amp; II Lab .....</b>	<b>1</b>	<b>1</b>
<b>ANSC</b>		<b>1000</b>	<b>Introduction to ANSC .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>	<b>1100</b>		<b>Orientation to ANSC .....</b>	<b>**</b>	<b>1</b>
				<b>15</b>	<b>15</b>
<b>SO</b>					
ENGL	2200	2210	World Literature I & II .....	3	3
			Core Social Science Group I .....	3	**
			Core History .....	3	3
			Core Fine Arts .....	**	3
CHEM	2070	2080	Organic Chemistry I & II .....	3	3
CHEM	2071	2081	Organic Chemistry Lab I & II .....	1	1
BIOL	2500	2510	Anat Physiol I & II .....	4	4
				<b>17</b>	<b>17</b>

<b>JR</b>					
			Core Philosophy .....	3	**
ECON	2020		Microeconomics .....	**	3
PHYS	1500	1510	General Physics I & II .....	4	4
<b>ANSC</b>	<b>3400</b>		<b>Animal Nutrition .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>	<b>3500</b>		<b>Animal Breeding .....</b>	<b>**</b>	<b>3</b>
<b>ANSC</b>	<b>3600</b>		<b>Reproductive Physiol .....</b>	<b>**</b>	<b>4</b>
<b>ANSC</b>		<b>3800</b>	<b>Careers in Animal Science .....</b>	<b>**</b>	<b>1</b>
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry .....</b>	<b>3</b>	**
				<b>14</b>	<b>15</b>

<b>SR</b>					
BIOL	3000		Genetics .....	4	**
COMM	1000		Public Speaking .....	3	**
STAT	2510		Statistics for Biology and Sciences Health .....	3	**
<b>BIOL</b>	<b>3200</b>		<b>Microbiology .....</b>	<b>4</b>	**
			Directed Elective .....	**	4
			Directed Elective .....	**	3-4
			Free Electives .....	**	5-6
UNIV	4AA0		AG1 Undergraduate Graduation .....	**	0
				<b>14</b>	<b>13</b>

**TOTAL HOURS - 120**

Directed Electives - See advisor for approved course listings.

### Biosystems Engineering (BSEN)

The Biosystems Engineering Department offers the only accredited degree in biosystems engineering in Alabama. It is committed to preparing students for productive professional careers in the biosystems industries and related natural resource and environmental systems sectors. Specific educational objectives of the biosystems engineering degree program are to produce graduates with: (1) the skills necessary to solve engineering problems associated with the environment and natural resources, and the production, processing, storage, manufacture, utilization, and recycling of biological products; (2) a fundamental understanding of engineering and biological sciences and the ability to combine knowledge from both domains to develop solutions to problems; (3) the ability to analyze critically and conduct scientific experimentation and engineering analysis that leads to development of environmentally and economically feasible design solutions that can be practically implemented; and (4) the ability to understand and expand the role of engineering in society; communicate, work, and provide leadership in multidisciplinary environments; and continue developing professionally and ethically throughout their career.

The curriculum is coordinated by the Samuel Ginn College of Engineering and the College of Agriculture. Beginning students should apply for admission to the Samuel Ginn College of Engineering and complete the pre-biosystems engineering program. A forest engineering option is also available under the biosystems engineering degree program.

See the Samuel Ginn College of Engineering section for curriculum model, admission and degree requirements.

### Fisheries and Allied Aquacultures (FISH)

Fisheries science combines a general foundation in chemistry, mathematics and biological sciences with applied courses in the principles needed to manage fresh and saltwater aquatic resources. The degree is intended to equip students with a broad understanding of fundamental scientific principles needed to develop solutions for the increasing pressures on our aquatic resources and the need to provide safe, reliable food through aquaculture production. Through a sequence of courses, students specialize in emphasis areas of aquatic ecology, fisheries management or aquaculture. The FISH Pre-Vet/Pre-Professional area of emphasis provides students with a broad base of scientific knowledge necessary for success in the College of Veterinary Medicine, other professional schools, or graduate school. Careers for graduates include work in environmental management, fisheries resource management, extension, and commercial aquaculture production, processing, and marketing.

#### Curriculum in Fisheries and Allied Aquacultures

(Aquaculture, Aquatic Resources Management and Fisheries Management Areas of Emphasis)

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II .....	3	3
HIST	1010	1020	World History I & II .....	3	3
MATH	1610		Calculus I.....	4	**
PHYS		1000	Foundations of Physics & Lab (1001) .....	**	4
<b>BIOL</b>	<b>1020</b>		<b>Principles of Biology &amp; Lab (1021).....</b>	<b>4</b>	<b>**</b>
<b>BIOL</b>		<b>1030</b>	<b>Org Biology &amp; Lab (1031).....</b>	<b>**</b>	<b>4</b>
			Elective.....	1	2
				<b>15</b>	<b>16</b>
<b>SO</b>					
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fund of Chemistry Lab I & II .....	1	1
ECON		2020	Principles of Microeconomics.....	**	3
ENGL	2200	2210	World Literature I & II.....	3	3
			Core Philosophy.....	3	**
			Core Social Science Group II .....	3	**
<b>BIOL</b>		<b>3060</b>	<b>Principles of Ecology .....</b>	<b>**</b>	<b>4</b>
				<b>13</b>	<b>14</b>
<b>SUMMER</b>					
	<b>FISH</b>	<b>2100</b>	<b>Introduction to Fish Science .....</b>	<b>6</b>	
<b>JR</b>					
			Core Fine Arts .....	3	**
AGEC	2100		Micro Comp Application in AG .....	3	**
CHEM		2030	Organic Chemistry.....	**	3
STAT		2510	Stat Ag & Life Science .....	**	3
			Emphasis .....	4	4
<b>FISH</b>	<b>5220</b>		<b>Water Science.....</b>	<b>3</b>	<b>**</b>
<b>FISH</b>		<b>5320</b>	<b>Limnology.....</b>	<b>**</b>	<b>4</b>
				<b>13</b>	<b>14</b>

<b>SR</b>					
COMM	1000		Public Speaking .....	**	3
			Emphasis .....	4	9
<b>FISH</b>	<b>3950</b>		<b>Seminar .....</b>	<b>1</b>	<b>**</b>
<b>FISH</b>	<b>5380</b>		<b>General Ichthyology .....</b>	<b>4</b>	<b>**</b>
<b>FISH</b>	<b>5510</b>		<b>Fish Biology &amp; Management .....</b>	<b>3</b>	<b>**</b>
			Elective .....	2	3
UNIV	4AA0		AG1 Undergraduate Graduation .....	**	0
				<b>14</b>	<b>15</b>

#### TOTAL HOURS - 120

Emphasis - See Advisor for approved course listing.

#### Curriculum in Fisheries and Allied Aquacultures

Pre-Professional Option

FR	F	S		F	S
ENGL	1100	1120	English Composition I & II .....	3	3
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamentals of Chemistry Lab I & II.....	1	1
MATH	1130		Pre-Calc. Trig.....	3	**
			Philosophy Core.....	**	3
<b>BIOL</b>	<b>1020</b>		<b>Principles of Biology &amp; Lab (1021).....</b>	<b>4</b>	<b>**</b>
<b>BIOL</b>		<b>1030</b>	<b>Org Biology &amp; Lab (1031).....</b>	<b>**</b>	<b>4</b>
			Elective.....	1	2
				<b>15</b>	<b>16</b>
<b>SO</b>					
ECON	2020		Principles of Microeconomics.....	3	**
ENGL	2200	2210	World Literature I & II.....	3	3
PHYS	1500		General Physics I .....	4	**
PHYS		1510	General Physics II .....	**	4
CHEM	2070	2080	Organic Chemistry I & II .....	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab .....	1	1
<b>BIOL</b>		<b>3060</b>	<b>Prin. of Ecol.....</b>	<b>**</b>	<b>4</b>
				<b>14</b>	<b>15</b>

#### SUMMER

	<b>FISH</b>	<b>2100</b>	<b>Introd. To Fish. Sci. (Mini-Semester III).....</b>	<b>6</b>	
<b>JR</b>					
			Core Fine Arts .....	3	**
HIST	1010	1020	World History I & II .....	3	3
COMM	1000		Public Speaking .....	3	**
			Core Social Science .....	**	3
STAT		2510	Stat Ag & Life Science .....	**	3
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry .....</b>	<b>3</b>	<b>**</b>
<b>FISH</b>	<b>5220</b>		<b>Water Science.....</b>	<b>3</b>	<b>**</b>
			Science Electives .....	**	6
				<b>15</b>	<b>15</b>

#### SR

			Emphasis .....	3	3
<b>FISH</b>		<b>5320</b>	<b>Limnology.....</b>	<b>**</b>	<b>4</b>
<b>FISH</b>	<b>3950</b>		<b>Seminar .....</b>	<b>1</b>	<b>**</b>
<b>FISH</b>	<b>5380</b>		<b>General Ichthyology .....</b>	<b>4</b>	<b>**</b>
<b>FISH</b>	<b>5410</b>		<b>Fish Health .....</b>	<b>2</b>	<b>**</b>
<b>FISH</b>	<b>5510</b>		<b>Fish Biology &amp; Management .....</b>	<b>3</b>	<b>**</b>
			Electives .....	**	4
UNIV	4AA0		AG1 Undergraduate Graduation .....	**	0
				<b>13</b>	<b>11</b>

#### TOTAL HOURS - 120

Students in the Pre-Professional emphasis must satisfactorily complete 6 semester hours of **Emphasis** courses FISH 6210, FISH 6240, FISH 6250, or FISH 6520) plus 6 semester hours of Science Electives (BIOL 3000, BIOL 3010, BIOL 3200, ANSC 3400, BIOL 4000, BIOL 4100, BIOL 4200, FISH 4970)

### Horticulture (HORT)

Courses prepare Horticulture graduates for the following careers; nursery manager, landscape designer, landscape installer, landscape maintenance, interior landscaping, plant propagator, city or state horticulturist, extension horticulturist, horticulture writer, horticulture teacher, florist shop manager, greenhouse manager, vegetable producer, orchard manager, chemical company representative, seed company representative or retail garden center manager.

Three undergraduate tracks are available to students in horticulture: landscape horticulture, nursery and greenhouse science and fruit and vegetable production. Horticulture offers masters and doctoral degrees, which lead to professional positions in teaching, research and extension.

#### Curriculum in Nursery and Greenhouse Science

FR	F	S		F	S
BIOL	1020		Principles of Biology & Lab (1021).....	4	**
BIOL		1030	Organismal Biology & Lab (1031).....	**	4
CHEM		1030	Fundamentals of Chemistry .....	**	3
CHEM		1031	Fundamentals of Chemistry Lab .....	**	1
ENGL	1100	1120	English Composition I & II.....	3	3
MATH	1130		Pre-Calculus W/Trig <b>OR</b> .....	3	**

College of Agriculture

MATH	1150	Pre-Calculus Algebra & Trig .....	4	**				
		Core History I & II .....	3	3				
<b>HORT</b>	<b>1010</b>	<b>Introduction to Horticulture.....</b>	<b>1</b>	<b>**</b>				
			<b>14-15</b>	<b>14</b>				
<b>SO</b>								
ECON	2020	Microeconomics .....	3	**				
ENGL	2200	2210 World Literature I & II.....	3	3				
		Core Philosophy .....	3	**				
COMM	1000	Public Speaking .....	**	3				
AGRN	2040	Basic Soil Science.....	4	**				
AGEC	2100	Microcomp App in Agriculture .....	3	**				
		Core Social Science Group I.....	3	**				
<b>HORT</b>	<b>2240</b>	<b>Plant Propagation.....</b>	<b>**</b>	<b>3</b>				
<b>HORT</b>	<b>3210</b>	<b>Small Trees, Shrubs &amp; Vines.....</b>	<b>**</b>	<b>4</b>				
			<b>16</b>	<b>16</b>				
<b>JR</b>								
		Core Fine Arts .....	**	3				
PLPA	3000	General Plant Pathology .....	4	**				
AGRN	3150	Turfgrass Management.....	4	**				
ENTM	4020	Economic Entomology .....	**	4				
<b>HORT</b>	<b>3000</b>	<b>Growth &amp; Dev. of Hort Plants .....</b>	<b>3</b>	<b>**</b>				
<b>HORT</b>	<b>3220</b>	<b>Arboriculture .....</b>	<b>4</b>	<b>**</b>				
<b>HORT</b>	<b>3950</b>	<b>Careers in Horticulture .....</b>	<b>1</b>	<b>**</b>				
<b>HORT</b>	<b>4100</b>	<b>Herbaceous Ornamentals.....</b>	<b>**</b>	<b>4</b>				
		<b>Group I.....</b>	<b>**</b>	<b>3-4</b>				
			<b>16</b>	<b>14-15</b>				
<b>SR</b>								
<b>HORT</b>	<b>5220</b>	<b>Greenhouse Management Science .....</b>	<b>4</b>	<b>**</b>				
<b>HORT</b>	<b>5230</b>	<b>Nursery Management.....</b>	<b>3</b>	<b>**</b>				
		<b>Group I.....</b>	<b>3-4</b>	<b>**</b>				
		<b>Group 2 .....</b>	<b>3-4</b>	<b>3-4</b>				
		Electives .....	**	11-12				
UNIV	4AA0	AG1 Undergraduate Graduation .....	**	0				
			<b>13-15</b>	<b>14-16</b>				

**TOTAL HOURS - 120**

Group I and 2: see advisor for approved course listing.

**Curriculum in Landscape Horticulture**

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
BIOL	1020	Principles of Biology & Lab (1021).....	4	**	
BIOL	1030	Organismal Biology & Lab (1031).....	**	4	
CHEM	1030	Fundamentals of Chemistry .....	**	3	
CHEM	1031	Fundamentals of Chemistry Lab.....	**	1	
ENGL	1100	1120 English Composition I & II.....	3	3	
MATH	1130	Pre-Calculus w/Trig <b>OR</b> .....	3	**	
MATH	1150	Pre-Calculus Algebra & Trig .....	4	**	
		Core History I & II .....	3	3	
<b>HORT</b>	<b>1010</b>	<b>Introduction to Horticulture.....</b>	<b>1</b>	<b>**</b>	
			<b>14-15</b>	<b>14</b>	
<b>SO</b>					
ECON	2020	Microeconomics .....	3	**	
ENGL	2200	2210 World Literature I & II.....	3	3	
		Core Philosophy .....	**	3	
COMM	1000	Public Speaking .....	**	3	
AGRN	2040	Basic Soil Science.....	4	**	
AGEC	2100	Microcomp App in Agriculture .....	3	**	
		Core Social Science Group I.....	3	**	
<b>HORT</b>	<b>2240</b>	<b>Plant Propagation.....</b>	<b>**</b>	<b>3</b>	
<b>HORT</b>	<b>3210</b>	<b>Small Trees, Shrubs &amp; Vines.....</b>	<b>**</b>	<b>4</b>	
			<b>16</b>	<b>16</b>	
<b>JR</b>					
		Core Fine Arts .....	**	3	
PLPA	3000	General Plant Pathology .....	4	**	
AGRN	3150	Turfgrass Management.....	4	**	
ENTM	4020	Economic Entomology .....	**	4	
<b>HORT</b>	<b>3000</b>	<b>Growth &amp; Develop of Hort Plants .....</b>	<b>3</b>	<b>**</b>	
<b>HORT</b>	<b>3220</b>	<b>Arboriculture .....</b>	<b>4</b>	<b>**</b>	
<b>HORT</b>	<b>3950</b>	<b>Careers in Horticulture .....</b>	<b>1</b>	<b>**</b>	
<b>HORT</b>	<b>4100</b>	<b>Herbaceous Ornamentals.....</b>	<b>**</b>	<b>4</b>	
<b>HORT</b>	<b>4270</b>	<b>Intermediate Landscape Design.....</b>	<b>**</b>	<b>3</b>	
			<b>16</b>	<b>14</b>	
<b>SR</b>					
<b>HORT</b>	<b>5210</b>	<b>Landscape Bid, Install &amp; Maint .....</b>	<b>**</b>	<b>4</b>	
		<b>Group I.....</b>	<b>6-8</b>	<b>**</b>	
		<b>Group 2 .....</b>	<b>3-4</b>	<b>3-4</b>	
		Electives .....	2-5	7-8	
UNIV	4AA0	AG1 Undergraduate Graduation .....	**	0	
			<b>14-15</b>	<b>14-16</b>	

**TOTAL HOURS - 120**

Group I and 2: see advisor for approved course listing.

**Curriculum in Fruit and Vegetable Production**

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
BIOL	1020	Principles of Biology & Lab (1021).....	4	**	
BIOL	1030	Organismal Biology & Lab (1031).....	**	4	
ENGL	1100	1120 English Composition I & II.....	3	3	
MATH	1130	Pre-Calculus w/Trig .....	3	**	
		Core Fine Arts .....	**	3	
		Core History I & II.....	3	3	
		Public Speaking .....	**	3	
<b>COMM</b>	<b>1000</b>	<b>Introduction to Horticulture.....</b>	<b>1</b>	<b>**</b>	
<b>HORT</b>	<b>1010</b>		<b>14</b>	<b>16</b>	
<b>SO</b>					
CHEM	1030	1040 Fundamentals of Chemistry I & II.....	3	3	
CHEM	1031	1041 Fundamentals of Chemistry I & II Lab.....	1	1	
ENGL	2200	2210 World Literature I & II.....	3	3	
		Core Philosophy .....	3	**	
ACCT	2910	Fund of Accounting.....	**	3	
<b>HORT</b>	<b>2010</b>	<b>Fruit and Nut Production .....</b>	<b>4</b>	<b>**</b>	
<b>HORT</b>	<b>2030</b>	<b>Vegetable Production.....</b>	<b>**</b>	<b>3</b>	
<b>HORT</b>	<b>2240</b>	<b>Plant Propagation.....</b>	<b>**</b>	<b>3</b>	
			<b>14</b>	<b>16</b>	
<b>JR</b>					
AGEC	2100	Microcomp. App in Agriculture .....	**	3	
PLPA	3000	General Plant Pathology .....	4	**	
ENTM	4020	Economic Entomology .....	**	4	
		Core Social Science Group I .....	3	**	
ECON	2020	Prin. Microeconomics.....	**	3	
		<b>Horticulture Group I or 2.....</b>	<b>3-4</b>	<b>3-4</b>	
<b>HORT</b>	<b>3000</b>	<b>Growth &amp; Dev of Hort Plants.....</b>	<b>3</b>	<b>**</b>	
<b>HORT</b>	<b>5120</b>	<b>Small Fruit &amp; Pecan Culture.....</b>	<b>**</b>	<b>3</b>	
			<b>12-13</b>	<b>16-17</b>	
			<b>13-14</b>	<b>16-17</b>	
<b>SUMMER</b>					
<b>HORT</b>	<b>5110</b>	<b>Tree Fruit Culture.....</b>	<b>3</b>		
<b>SR</b>					
<b>HORT</b>	<b>5130</b>	<b>Sustain Veg Crop Production.....</b>	<b>3</b>	<b>**</b>	
<b>HORT</b>	<b>5140</b>	<b>Postharvest Biology &amp; Tech .....</b>	<b>**</b>	<b>3</b>	
		<b>Group I or 2 .....</b>	<b>**</b>	<b>6-8</b>	
AGRN	2040	Basic Soil Science.....	4	**	
UNIV	4AA0	AG1 Undergraduate Graduation .....	**	7	3-5
			<b>14</b>	<b>12-16</b>	

**TOTAL HOURS - 120**

Horticulture Elective Group I and 2: see advisor for approved course listing.

**Poultry Science (POUL)**

Three curriculum options are available to students in Poultry Science 1) Poultry Production, 2) Pre-Veterinary Medicine, and 3) Poultry Processing and Products. Each curriculum option leads to the B.S. degree in Poultry Science. Professional and general electives within each option allow students to pursue expertise in their individual area of interest. Enrollment in summer internship is required in all three options.

**Curriculum in Poultry Production**

This curriculum option is designed to develop technical, analytical, communication, business and management skills needed for advancement to leadership positions in the live poultry production, and allied agricultural industries. Graduates will be able to apply their knowledge of science, economics, business and ethics to identify, analyze and responsibly address challenges associated with modern poultry production. Relevant courses in poultry processing and products are also included in this curriculum option.

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
COMP	1000	Pers Comp Applications .....	2	**	
		Core Philosophy .....	**	3	
CHEM	1030	1040 Fundamentals of Chemistry I & II.....	3	3	
CHEM	1031	1041 Fundamentals of Chemistry I & II Lab.....	1	1	
ENGL	1100	1120 English Composition I & II.....	3	3	
MATH	1130	Pre-Calculus w/Trigonometry.....	3	**	
		Social Science Group I.....	**	3	
COMM	1000	Public Speaking .....	**	3	
<b>POUL</b>	<b>1000</b>	<b>Introductory Poultry Science .....</b>	<b>3</b>	<b>**</b>	
			<b>15</b>	<b>16</b>	

<b>SO</b>			Core History .....	3	3
			Core Fine Arts .....	3	**
ECON	2020		Microeconomics .....	**	3
ENGL	2200	2210	World Literature I & II.....	3	3
BIOL	1020		Principles of Biology & Lab (1021) .....	4	**
BIOL		1030	Organismal Biology & Lab (1031).....	**	4
<b>POUL</b>	<b>3030</b>		<b>Comm Poultry Production .....</b>	<b>4</b>	<b>**</b>
CHEM		2030	Survey Organic Chemistry .....	**	3
				<b>17</b>	<b>16</b>

<b>JR</b>					
BCHE		3200	Principles of Biochemistry.....	**	3
PHYS	1000		Foundations of Physics .....	4	**
<b>POUL</b>	<b>3150</b>		<b>Poultry Physiology.....</b>	<b>**</b>	<b>4</b>
<b>POUL</b>	<b>3060</b>		<b>Brd, Frt, &amp; Htch.....</b>	<b>**</b>	<b>4</b>
<b>POUL</b>	<b>5110</b>		<b>Poultry Process .....</b>	<b>3</b>	<b>**</b>
<b>STAT</b>	<b>2510</b>		<b>Introduction to Statistics.....</b>	<b>3</b>	<b>**</b>
			Professional Electives .....	4	4
				<b>14</b>	<b>15</b>

<b>SR</b>					
AGEC	4000		Agribusiness Management.....	3	**
			COMM 2410 or ENGL 3040 or ENGL 3080...	**	3
<b>BIOL</b>	<b>3200</b>		<b>Microbiology .....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5040</b>		<b>Poultry Further Proc.....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5050</b>		<b>Poultry Feeding.....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5080</b>		<b>Poultry Health .....</b>	<b>**</b>	<b>3</b>
<b>POUL</b>	<b>5160</b>		<b>Principles Food Safety .....</b>	<b>**</b>	<b>3</b>
			General Electives.....	**	2
			Professional Electives .....	**	4
				<b>15</b>	<b>15</b>

<b>SUMMER</b>					
	<b>POUL</b>	<b>4920</b>	<b>Poultry Science Internship .....</b>	<b>3</b>	
	UNIV	4AA0	AU1 Undergraduate Graduation .....	**	0
			<b>TOTAL HOURS - 126</b>		

Professional electives see advisor for approved list.

**Curriculum in Poultry Science/Pre-Veterinary Medicine**

This curriculum option is designed to develop the technical, analytical, and communication skills, as well as the broad scientific foundation needed for success in post-graduate degree programs such as doctor of veterinary medicine, master of science, doctor of philosophy or other post-graduate professional degrees. Completion of this curriculum option will also prepare graduates for technical and research positions in poultry and allied industries. Courses listed for the first six semesters satisfy requirements for admission to the College of Veterinary Medicine. Completion of the remaining requirements or successful completion of one year in the College of Veterinary Medicine entitles the student to a B.S. degree in poultry science.

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
BIOL	1020		Principles of Biology & Lab (1021) .....	4	**
BIOL		1030	Organismal Biology & Lab (1031) .....	**	4
COMP		1000	Pers Comp Applications .....	**	2
			Core Fine Arts .....	**	3
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
MATH	1130		Pre-Calculus w/Trigonometry.....	3	**
ENGL		1100	English Composition I .....	**	3
<b>POUL</b>	<b>1000</b>		<b>Introductory Poultry Science .....</b>	<b>3</b>	<b>**</b>
				<b>14</b>	<b>16</b>

<b>SO</b>					
ENGL	1120		Core History .....	3	3
			English Composition II .....	3	**
			Core Philosophy .....	**	3
ECON		2020	Microeconomics .....	**	3
CHEM	2070	2080	Organic Chemistry I & II .....	3	3
CHEM	2071	2081	Organic Chemistry I & II Lab .....	1	1
<b>POUL</b>	<b>3030</b>		<b>Comm Poul Production.....</b>	<b>4</b>	<b>**</b>
PHYS		1500	General Physics I .....	**	4
			Core Social Science Group I.....	3	**
				<b>17</b>	<b>17</b>

<b>JR</b>					
ENGL	2200	2210	World Literature I & II.....	3	3
<b>BIOL</b>	<b>3200</b>		<b>Microbiology .....</b>	<b>**</b>	<b>4</b>
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry .....</b>	<b>**</b>	<b>3</b>
<b>BIOL</b>	<b>3000</b>		<b>Genetics .....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5110</b>		<b>Poultry Processing .....</b>	<b>3</b>	<b>**</b>
PHYS	1510		General Physics II .....	4	**
<b>POUL</b>	<b>3060</b>		<b>Brd, Frt, &amp; Htch .....</b>	<b>**</b>	<b>4</b>
<b>POUL</b>	<b>3150</b>		<b>Poultry Physiol.....</b>	<b>**</b>	<b>4</b>
				<b>17</b>	<b>15</b>

<b>SR</b>					
STAT	2510		Statistics for Biol & Health Sciences.....	**	3
COMM	1000		Public Speaking .....	**	3
<b>POUL</b>	<b>4920</b>		<b>Poultry Science Internship .....</b>	<b>3</b>	<b>**</b>
<b>POUL</b>	<b>5050</b>		<b>Poultry Feeding.....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5160</b>		<b>Principle Food Safety.....</b>	<b>**</b>	<b>3</b>
<b>POUL</b>	<b>5040</b>		<b>Poultry Further Proc.....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5080</b>		<b>Poultry Health .....</b>	<b>**</b>	<b>3</b>
			General Elective .....	4	3
UNIV	4AA0		AU1 Undergraduate Graduation .....	**	0
				<b>15</b>	<b>15</b>

**TOTAL HOURS - 126**

Professional electives see advisor for approved list.

**Curriculum in Poultry Processing and Products**

This curriculum option is designed to develop the technical, analytical, communication, business and management skills needed for advancement to leadership positions in the poultry processing, food, and allied agricultural industries. This curriculum option involves all aspects of the food industry from raw materials through processing and packaging to marketing final products. Relevant courses in poultry production are also included in this curriculum option. Fundamental principles along with practical application in poultry and food science allows students to fit their education to their personal career goals. Career opportunities for graduates would include: quality assurance-food safety, research & product development, technical service, food regulation, and sales.

<b>FR</b>	<b>F</b>	<b>S</b>		<b>F</b>	<b>S</b>
			Core Fine Arts .....	**	3
COMP	1000		Pers Comp Applications .....	**	2
COMM	1000		Public Speaking .....	**	3
			Core Social Science Group I.....	3	**
CHEM	1030	1040	Fundamentals of Chemistry I & II.....	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab.....	1	1
MATH	1130		Pre-Calculus w/Trigonometry.....	3	**
ENGL	1100	1120	English Composition I & II .....	3	3
<b>POUL</b>	<b>1000</b>		<b>Introductory Poultry Science .....</b>	<b>3</b>	<b>**</b>
				<b>16</b>	<b>15</b>

<b>SO</b>					
			Core History .....	3	3
			Core Philosophy .....	3	**
ECON		2020	Microeconomics .....	**	3
ENGL	2200	2210	World Literature I & II.....	3	3
BIOL	1020		Principles of Biology & Lab (1021) .....	4	**
BIOL		1030	Organismal Biology & Lab (1031) .....	**	4
CHEM		2030	Organic Chemistry.....	**	3
PHYS	1000		Foundations of Physics .....	4	**
				<b>17</b>	<b>16</b>

<b>JR</b>					
STAT	2510		Statistics for Biol & Health Sciences.....	3	**
<b>BCHE</b>	<b>3200</b>		<b>Principles of Biochemistry .....</b>	<b>3</b>	<b>**</b>
<b>BIOL</b>	<b>3200</b>		<b>Microbiology .....</b>	<b>4</b>	<b>**</b>
<b>BIOL</b>	<b>5660</b>		<b>Food Microbiology .....</b>	<b>**</b>	<b>5</b>
<b>POUL</b>	<b>3150</b>		<b>Poultry Physiol.....</b>	<b>**</b>	<b>4</b>
<b>POUL</b>	<b>5150</b>		<b>Food Laws and Regulations.....</b>	<b>**</b>	<b>3</b>
			<b>Processing Course .....</b>	<b>3-4</b>	<b>**</b>
			<b>PPP Support Course .....</b>	<b>**</b>	<b>3-4</b>
				<b>13-14</b>	<b>15-16</b>

<b>SR</b>					
<b>BSEN</b>	<b>5550</b>		<b>Principles of Food Engr. Technology.....</b>	<b>4</b>	<b>**</b>
NUFS	5450		Food Analysis & Quality Control .....	4	**
NUFS		5430	Food Chemistry .....	**	4
<b>POUL</b>	<b>3030</b>		<b>Comm Poul Production.....</b>	<b>4</b>	<b>**</b>
<b>POUL</b>	<b>5160</b>		<b>Principle Food Safety .....</b>	<b>**</b>	<b>3</b>
			<b>Processing Course .....</b>	<b>3-4</b>	<b>4</b>
			<b>PPP Support Course .....</b>	<b>**</b>	<b>3-4</b>
				<b>15-16</b>	<b>15-16</b>

<b>SUMMER</b>					
	<b>POUL</b>	<b>4920</b>	<b>Poultry Science Internship .....</b>	<b>3</b>	
	UNIV	4AA0	AU1 Undergraduate Graduation .....	**	0
			<b>TOTAL HOURS - 126</b>		