

College of Agriculture

JOHN JENSEN, Interim Dean
R. L. GUTHRIE, Executive Associate Dean
W.E. HARDY JR., Associate Dean
W. J. ALVERSON, JR., Assistant Dean

THE COLLEGE OF AGRICULTURE prepares students for careers in agriculture and related professions. Courses provide a broad foundation in the basic sciences, a general knowledge of the applied sciences, and a reasonable number of cultural subjects. Most of the basic science courses are given in the freshman and sophomore years and serve as a basis for a better understanding of the applied subjects, usually taken in the junior and senior years.

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 Dean.

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

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 & 1501 and, PHYS 1510 & 1511 (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 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 College of Engineering. Additionally, before transferring to the 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 GPAs which indicate the likelihood of satisfactory completion of 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 College of Engineering.

It is also possible for qualified students to transfer to the 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)

Courses required:		Cr. Hr.
CCT	2910 Fundamentals of Accounting	3
AGEC	4040 Agriculture Finance	3
AGEC	6000 Principles of Agribusiness Mngt	OR
AGEC	6010 Farm Management	OR
AGEC	6100 Agribusiness Management	3
Elective Courses - See adviser for approved course listing.		

AGRONOMY & SOILS MINOR

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

Courses required:		Cr. Hr.
AGR N	1000 Basic Crop Science	4
AGR N	2040 Introductory Soils	4
Elective Courses - See adviser for approved course listing.		

ANIMAL SCIENCES MINOR

15 -16 semester hours in Minor (minimum 9 hours at 3000 level or above)

Courses required:		Cr. Hr.
ANSC	1000 Introductory Animal Science	4
Elective Courses - See adviser for approved course listing.		

ENTOMOLOGY MINOR

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

Courses required:		Cr. Hr.
ENTM	3040 General Entomology	4
Elective Courses - See adviser for approved course listing.		

FISHERIES AND ALLIED AQUACULTURE MINOR

Junior (03) classification is required

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

Selected from:		Cr. Hr.
FISH	2100 Introduction to Fisheries Science	6
FISH	6210 Principles of Aquaculture	3
FISH	6220 Water Science	3
FISH	6250 Aquaculture Production	4
FISH	6320 Limnology	4
FISH	6380 Ichthyology	4
FISH	6410 Introduction to Fish Health	2
FISH	6510 Fisheries Biology and Management	3

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	6090 Resource Economics I	3
AGEC	6120 Env & Natural Res Economics	3
Elective Courses - See adviser for approved course listing.		

PLANT PATHOLOGY MINOR

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

Courses required:		Cr. Hr.
PLPA	3000 General Plant Pathology	4
Elective Courses - See adviser 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 adviser 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 adviser 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. Programs are designed to help students reach their goals and help ensure a rewarding career.

Curriculum in Agricultural Business & Economics

FR	F	S		F	S
ECON		2020	Microeconomics	**	3
ENGL	1100	1120	English Composition I & II	3	3
HIST	1210	1220	Tech & Civil I & II	3	3
MATH	1680	1690	Calculus w/Bus. Applics I & II	4	3
SOCY	1000		Sociology: Global Perspective	3	**
			Core Fine Art	3	**
AGEC		2100	Microcomputer Applications	**	3
				16	15
SO					
BIOL	1020		Principles Biology	4	**
BIOL		1030	Organismal Biology	**	4
ECON	2030		Macroeconomics	3	**
ENGL	2200	2210	Great Books I & II	3	3
			PHIL1020 Ethics or 1040 Business Ethics	3	**
ACCT	2110	2210	Financial & Managerial Acct	3	3
STAT		2510	Statistics for Biology & Health Sci OR	**	**
STAT		2610	Statistics for Bus & Economics	**	3
COMM		1000	Professional Communication	**	3
				16	16
JR					
ECON	3020		Intermediate Economics	3	**
ENGL	3080		Business Writing	3	**
AGEC	3010		Agribusiness Marketing	3	**
AGEC		4040	Agricultural Finance	**	3
AGEC		4950	Undergraduate Seminar	**	0
			Agriculture Elective	4	4
			Career Track Elective	2	7
				15	14
SR					
AGEC	4070		Agricultural Law	3	**
AGEC		4300	Agricultural Trade & Policy	**	3
AGEC	6010		Farm Management	**	3
AGEC		6030	Agricultural Prices	**	3
AGEC	6090		Resources Economics I	3	**
AGEC	6100		Agribusiness Management	3	**
			Career Track Elective	5	5
				14	14
TOTAL HOURS - 120					

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

Agricultural Communications (AGCO)

The Agricultural Communications major provides graduates with training in a wide range of agricultural, biological and physical science courses, plus a strong background in journalism, general communications, and public relations subjects.

Many large agricultural media and medical technological operations, plus many magazine companies, publish highly technical material. Edi-

tors and writers of such publications need a knowledge of agricultural and technical subject matter and terminology, as well as communication skills. This combination is not found in other curricula.

Curriculum in Agricultural Communications

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
ENGL	1100	1120	English Composition I & II	3	3
MATH	1130		Pre-Calculus with Trigonometry	3	**
			Core History	3	3
			Core Social Science I	**	3
JRNL		1100	Newspaper Fundamental	**	3
				13	16
SO					
CHEM	1030	1040	Fund of Chemistry I & II	3	3
CHEM	1031	1041	Fund of Chemistry Lab I & II	1	1
ENGL	2200	2210	Great Books I & II	3	3
			Core Fine Arts	**	3
JRNL	2210		Newsriting	3	**
JRNL		2910	Practicum in Journalism	**	1
JRNL	2310		Reporting	**	3
AGEC	2100		Microcomputer Application	3	**
			POUL or ANSC	3-4	**
				16-17	14
JR					
ECON	2020		Microeconomics	3	**
			Core Philosophy	**	3
JRNL	3220		Feature Writing	3	**
JRNL	3410		Photo Journalism	3	**
JRNL		3470	Newspaper Editing/Design	**	3
RTVF		3380	Broadcast News	**	3
COMM	1000		Public Speaking	3	**
COMM		1010	Comm Skills in Leadership Setting	**	3
AGEC		3010	HORT or AGRN	**	3
			Agricultural Marketing	**	3
				16	15
SUMMER					
JRNL	4920		Internship OR		
JRNL	4430		Journalism Workshop	3	3
SR					
PRCM	3040		Found of Public Relations	3	**
RTVF		3350	Writing for TV/Radio/Film	**	3
JRNL	4470		Adv. Feature Writing OR		
JRNL	4230		Adv. Reporting OR		
JRNL	4460		Press Law and Ethics	2	**
AGEC	4070		Agricultural Law	**	3
AGRN	2040		Basic Soil Science	4	**
			Agricultural Elective	**	4
			Elective	4	3-4
				13	13-14
TOTAL HOURS - 120					

Agricultural Elective - See adviser for approved course listing.

HORT, AGRN, ANSC, POUL - See adviser for approved course listing.

Agronomy and Soils (AGRN)

Courses prepare Agronomy graduates for: (1) turfgrass industry, (2) chemical industry, producers of fertilizers, herbicides and other agricultural chemicals; (3) farm-advisory agencies such as soil testing laboratories and other private consultants; (4) public farm-advisory agencies such as the Agricultural Extension Service or the Natural Resources Conservation Service; (5) research agencies of corporations, U.S. Department of Agriculture, colleges and universities and Agricultural Experiment Stations; (6) farming and (7) environmental agencies.

Curriculum in Agronomy & Soils - Production Track

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fundamentals Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals Chemistry I & II Lab	1	1
ENGL		1100	English Composition 1	**	3
MATH	1130	1610	Math	3	4
AGRN	1000		Basic Crop Science	4	**
			Elective	1	**
				16	15
SO					
ENGL	1120		English Composition II	3	**
HIST	1210	1220	Technology & Civilization I & II	3	3
			Core Social Science Group 1	**	3
			Core Art	**	3
ACCT	2910		Fundamentals of Accounting Princ	3	**

CHEM	2030	Organic Chemistry	3	**
ENGL	2200	Great Books I	**	3
AGEC	2100	Microcomputer Applications	3	**
AGRN	2040	Basic Soil Science	**	4
			15	16
JR				
ENGL	2210	Great Books II	3	**
BIOL	3000	Genetics	**	4
BIOL	3100	Plant Biology	**	3
BIOL	3101	Plant Biology Lab	1	**
ECON	2020	Microeconomics	3	**
PLPA	3000	General Plant Pathology	**	4
AGRN	3120	Weed Science	4	**
AGRN	4000	Advanced Crop Production	**	3
AGRN	4010	Princ of Forage Production	**	3
AGRN	4950	Senior Seminar	**	1
		Elective	**	1
			14	16
SR				
		Core Philosophy	**	3
AGEC	6000	Principles of Agribusiness Mgnt	3	**
AGRN	6000	Soils & Environment Quality	**	3
AGRN	6020	Nutrient Management	**	3
AGRN	6080	Soils Resources & Conser	**	4
AGRN	6100	Methods of Plant Breeding	**	3
AGRN	6150	Soil Morphology	**	4
ENTM	4020	Economic Entomology	**	4
		Elective	**	1
			14	14

TOTAL HOURS - 120

Curriculum in Agronomy & Soils - Business Track

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fundamentals Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals Chemistry I & II Lab	1	1
ENGL		1100	English Composition 1	**	3
MATH	1130	1610	Math	3	4
AGRN	1000		Basic Crop Science	**	4
			Elective	**	1
				16	15
SO					
ENGL	1120		English Composition II	3	**
HIST	1210	1220	Technology & Civilization I & II	3	3
			Core Social Science Group 1	3	**
ACCT	2910		Fundamentals of Accounting Principles ...	3	**
AGEC		2100	Microcomputer Applications	**	3
CHEM	2030		Organic Chemistry	3	**
ECON		2020	Microeconomics	**	3
ENGL		2200	Great Books I	**	3
AGRN	2040		Basic Soil Science	**	4
				15	16
JR					
ENGL	2210		Great Books II	3	**
BIOL	3100		Plant Biology	3	**
BIOL	3101		Plant Biology Lab	1	**
BIOL		3000	Genetics	**	4
PLPA		3000	General Plant Pathology	**	4
AGRN	3120		WeedScience	4	**
			AGRN4010 or 3150	**	4
MNGT	3100		Principles of Management	**	3
AGRN	4950		Senior Seminar	**	1
			Elective	**	1
				14	14
SR					
			Core Philosophy	**	3
			Core Fine Art	3	**
AGEC		4070	4070 Ag Law or 4040 Ag. Finance	**	3
ENTM	4020		Economic Entomology	4	**
AGRN	4000		Advanced Crop Production	**	3
AGRN	6000		Soil & Environ Quality	**	3
AGRN	6020		Nutrient Management	**	3
AGRN	6150		Soil Morphology	**	4
AGEC	6000		Principles of Agribusiness Mgnt.....	**	3
			Elective	**	1
				14	16

TOTAL HOURS - 120

Curriculum in Agronomy & Soils - Science Track

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fundamentals Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals Chemistry I & II Lab	1	1
ENGL		1100	English Composition 1	**	3
MATH	1130	1610	Math	3	4
AGRN	1000		Basic Crop Science	**	4
			Elective	**	1
				16	15
SO					
ENGL	1120		English Composition II	3	**
HIST	1210	1220	Technology & Civilization I & II	3	3
			Core Social Science Group 1	**	3
AGEC		2100	Microcomputer Applications	**	3
CHEM	2070		Organic Chemistry	3	**
CHEM	2071		Organic Chemistry Lab	1	**
CHEM		3050	Analytical Chemistry	**	3
CHEM		3051	Analytical Chemistry Lab	**	1
ENGL		2200	Great Books I	**	3
AGRN	2040		Basic Soil Science	**	4
				14	16
JR					
ENGL	2210		Great Books II	3	**
BIOL	3100		Plant Biology	3	**
BIOL	3101		Plant Biology Lab	1	**
BIOL		3000	Genetics	**	4
ECON	2020		Microeconomics	3	**
PHYS		1500	Gen. Physics I	**	4
PLPA		3000	General Plant Pathology	**	4
AGRN	3120		WeedScience	4	**
			AGRN4010 or 4000	**	3
AGRN	4950		Senior Seminar	**	1
				14	16
SR					
			Core Philosophy	**	3
			Core Fine Art	3	**
ENTM	4020		Economic Entomology	4	**
BIOL	3200		General Microbiology	4	**
AGRN	6020		Nutrient Management	**	3
			Agronomy & Soils Elective	4	4
			AGRN 6150 or BIOL 6120	**	4
				15	14

TOTAL HOURS - 120

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

Curriculum in Agronomy & Soils - Turfgrass Track

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fundamentals Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals Chemistry I & II Lab	1	1
ENGL		1100	English Composition 1	**	3
MATH	1130		Math	3	**
AGRN	1000		Basic Crop Science	**	4
AGRN	2040		Basic Soil Science	**	4
				15	15
SUMMER					
ENGL	1120		Written Comp 2	3	
HIST	1210		Tech & Civ I	3	
AGEC	2100		Microcomp.	3	
FLSP	1010		Spanish	4	
				13	
			See adviser for approved list for Soils Electives, ECON/MNGT Electives, Plant Science Elective.		
SO					
BIOL		1000	Plant Biology OR	**	3
HORT		3000	Growth & Dev of Hort Plants	**	3
HIST		1220	Technology & Civilization I & II	**	3
ENGL		2200	Great Books I	**	3
			Core Social Science Group I	**	3
MATH	1610		Analytical Geo	4	**
CHEM	2030		Organic Chemistry	3	**
ECON		2020	Microeconomics	**	3
AGRN	3120		Weed Science	4	**
AGRN	3150		Turfgrass Management	4	**
				15	15

JR					
ENGL	2210	Great Books II	3	**	
		Core Philosophy	3	**	
PLPA	3000	General Plant Pathology	4	**	
BSEN	3560	Golf Irrigation	3	**	
		Soil Elective	3	**	
		Internship*	**	**	
			16	0	
SR					
		Core Art	3	**	
ACCT	2910	Fund of Accounting Principles	3	**	
ENTM	4020	Economic Entm	**	4	
ENTM	6030	Insecticides	3	**	
AGRN	3920	Internship	3	**	
AGRN	4950	Senior Seminar	**	1	
AGRN	6160	Advanced Turfgrass	**	3	
AGRN	6020	Nutrient Management	**	3	
		Plant Science Elective	4	3	
		ECON/MNGT Elective	**	3	
			16	17	

TOTAL HOURS - 122

* Internship: Spring semester junior year

Animal Sciences (ANSC)

The department offers three 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 option (ANSC) offers greater breadth in animal production management and agribusiness while retaining more electives hours for additional curriculum flexibility. Students may use electives to develop expertise in fields such as meat science, animal breeding, nutrition, reproduction, growth, behavior, equine science and companion animals.

Curriculum in Animal Sciences - Muscle Foods Track

FR	F	S		F	S
ENGL	1100	1120	English Composition	3	3
MATH	1130		Math	3	**
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fund of Chemistry I & II	3	3
CHEM	1031	1041	Fund of Chemistry I & II Lab	1	1
ANSC		1000	Introduction to ANSC	**	4
ANSC	1100		Orientation to ANSC	1	**
				15	15
SO					
ECON		2020	Principles of Microeconomics	**	3
ENGL	2200	2210	Great Books I & II	3	3
			Core Social Science Group 1	3	**
			Core History	3	3
CHEM	2030		Organic Chemistry	3	**
BIOL	2500	2510	Anat Physiol I & II	4	4
BIOL		3000	Genetics	**	4
				16	17
JR					
			Core Philosophy	3	**
			Core Fine Art	3	**
COMM		1000	Communication	**	3
ANSC	2700		Value-Based Mktg	2	**
ANSC	3310		Intro. Meat Selection	2	**
			MF Support**	**	3-4
			ANSC Core I*	**	3-4
ANSC		3700	Muscle Foods	**	4
ANSC		3800	Careers in Animal Ag	**	1
BCHE	3200		Principles of Biochemistry	3	**
				13	14-16
SR					
ANSC	4700		Meat Processing	4	**
BIOL	3200		Microbiology	4	**
			ANSC Core II*	**	4
			MF Support**	4	**
			Free Electives	3	9-11
				15	13-15

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 adviser or the advising check sheet for ANMF.

Curriculum in Animal Sciences-Production Option

FR	F	S		F	S
ENGL	1100	1120	English Composition	3	3
MATH	1130		Math	3	**
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fund of Chemistry I & II	3	3
CHEM	1031	1041	Fund of Chemistry I & II Lab	1	1
ANSC		1000	Introduction to ANSC	**	4
ANSC	1100		Orientation to ANSC	1	**
				15	15
SO					
ECON		2020	Microeconomics	**	3
ENGL	2200	2210	Great Books I & II	3	3
			Core Social Science Group 1	3	**
			Core History	3	3
CHEM	2030		Organic Chemistry	3	**
BIOL	2500	2510	Anat Physiol I & II	4	4
BIOL		3000	Genetics	**	4
				16	17
JR					
			Core Philosophy	3	**
PHYS	1000		Foundations of Physics	4	**
ANSC		3400	Animal Nutrition	**	4
ANSC		3500	Animal Breeding	**	3
ANSC	3600		Reproductive Physiol	4	**
ANSC		3800	Careers in Animal Science	**	1
BCHE	3200		Principles of Biochemistry	3	**
			Directed Elective	**	4
AGEC		6000	Agribus Management	**	3
				14	15
SR					
			Core Art	3	**
COMM	1000		Communication	3	**
BIOL	3200		Microbiology	4	**
			Directed Elective	**	2-4
			Free Electives	4	10-12
				14	14

TOTAL HOURS - 120

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

FR	F	S		F	S
ENGL	1100	1120	English Composition	3	3
MATH	1130		Math	3	**
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Fund of Chemistry I & II	3	3
CHEM	1031	1041	Fund of Chemistry I & II Lab	1	1
ANSC		1000	Introduction to ANSC	**	4
ANSC	1100		Orientation to ANSC	1	**
				15	15
SO					
ENGL	2200	2210	Great Books I & II	3	3
			Core Social Science Group 1	3	**
			Core History	3	3
			Core Art	**	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
				17	17
JR					
			Core Philosophy	3	**
ECON		2020	Microeconomics	**	3
PHYS	1500	1510	Gen. Physics I & II	3	3
PHYS	1501	1511	Gen. Physics Lab I & II	1	1
ANSC		3400	Animal Nutrition	**	4
ANSC		3500	Animal Breeding	**	3
ANSC	3600		Reproductive Physiol	4	**
ANSC		3800	Careers in Animal Science	**	1
BCHE	3200		Principles of Biochemistry	3	**
				14	15
SR					
BIOL	3000		Genetics	4	**
COMM	1000		Communication	3	**
BIOL	3200		Microbiology	4	**
			Directed Elective	**	4
			Directed Elective	**	2-4
			Free Electives	3	5-7
				14	13

TOTAL HOURS - 120

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 program are to produce graduates with: the skills necessary to solve engineering problems associated with the production, processing, storage, and manufacture of food, fiber and agricultural products; the ability to combine engineering skills with training in biological sciences to solve problems and to work in multidisciplinary teams; the ability to analyze problems critically and conduct scientific experimentation and engineering analysis; the ability to continue developing professionally throughout their career.

The curriculum is coordinated by 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 & Allied Aquacultures

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

FR	F	S	F	S
ENGL	1100	1120	English Composition	3 3
HIST	1010	1020	World History I & II	3 3
MATH	1610		Calculus I	4 **
PHYS		1000	Foundations of Physics	** 4
BIOL	1020		Principles of Biology	4 **
BIOL		1030	Org Biology	** 4
			Elective	1 2
				15 16
SO				
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	Great Books I & II	3 3
			Core Philosophy	3 **
			Social Science Group 2	3 **
BIOL		3060	Principles of Ecology	** 4
				13 14
SUMMER				
FISH	2100		Introduction to Fish Science	6
JR				
			Core Fine Arts	3 **
AGEC	2100		Micro Comp Application	3 **
CHEM		2030	Organic Chemistry	** 3
STAT		2510	Stat Ag & Life Science	** 3
			Emphasis	4 4
FISH	6220		Water Science	3 **
FISH		6320	Limnology	** 4
				13 14

SR				
COMM	1010		Communication Skills	** 3
			Emphasis	4 9
FISH	3950		Seminar	1 **
FISH	6380		General Ichthyology	4 **
FISH	6510		Fish Biology & Management	3 **
			Elective	2 3
				14 15

TOTAL HOURS - 120

Emphasis - See adviser for approved course listing.

Curriculum in Fisheries and Aquatic Sciences - Pre-Professional Option

FR	F	S	F	S
ENGL	1100	1120	English Composition	3 3
CHEM	1030	1040	Fundamentals of Chemistry I & II	3 3
CHEM	1031	1041	Fund of Chemistry Lab I & II	1 1
MATH	1130		Pre-Calc. Trig	3 **
			PHIL Core	** 3
BIOL	1020		Principles of Biology	4 **
BIOL		1030	Org Biology	** 4
			Elective	1 2
				15 16
SO				
ECON	2020		Principles of Microeconomics	3 **
ENGL	2200	2210	Great Books I & II	3 3
PHYS	1500		Gen. Physics I & Lab	4 **
PHYS		1510	Gen. Physics II & Lab	** 4
CHEM	2070	2080	Organic Chemistry I & II	3 3
CHEM	2071	2081	Organic Chemistry I & II Lab	1 1
BIOL		3060	Prin. of Ecol.	** 4
				14 15
SUMMER				
FISH	2100		Intro. To Fish. Science	6 **
JR				
			Core Fine Arts	3 **
HIST	1010	1020	World History I & II	3 3
COMM	1010		Communication Skills	3 **
			Soc. Sci. Group I	** 3
STAT		2510	Stat Ag & Life Science	** 3
BCHE	3200		Principles of Biochemistry	3 **
FISH	6220		Water Science	3 **
			Science Electives	** 6
				15 15
SR				
			Emphasis	3 3
S				
FISH		6320	Limnology	** 4
FISH		3950	Seminar	** 1
FISH	6380		General Ichthyology	4 **
FISH	6410		Fish Health	2 **
FISH	6510		Fish Biology & Management	3 **
			Electives	** 4
				12 12

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 Crop Production. Horticulture offers masters and doctoral degrees which leads to professional positions in teaching, research and extension.

Curriculum in Nursery & Greenhouse Science

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	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 OR	3	**
MATH	1150		Pre-Calculus Algebra & Trig	4	**
			Core History I & II	3	3
HORT	1010		Introduction to Horticulture	1	**
				14-15	14
SO					
ECON	2020		Microeconomics	3	**
ENGL	2200	2210	Great Books I & II	3	3
			Core Philosophy	3	3
		1000	Public Speaking	**	3
COMM			Introductory Soils	4	**
AGRN	2040		Microcomp App in Agriculture	3	**
AGEC	2100		Social Science Group I	3	**
HORT	2240		Plant Propagation	**	3
HORT	3210		Small Trees, Shrubs & Vines	**	4
				16	16
JR					
			Core Fine Arts	**	3
PLPA	3000		General Plant Pathology	4	**
AGRN	3150		Turfgrass Management	4	**
ENTM		4020	Economic Entomology	**	4
HORT	3000		Growth & Dev of Hort Plants or	3	**
HORT	3220		Arboriculture	4	**
HORT	3950		Careers in Horticulture	1	**
HORT	4100		Herbaceous Ornamentals	**	4
			Horticulture Elective Group 1	**	3-4
				11-12	14-15
SR					
HORT	6220		Greenhouse Management Science	4	**
HORT	6230		Nursery Management	3	**
			Horticulture Elective Group 1	3-4	**
			Horticulture Elective Group 2	3-4	3-4
			Electives	**	11-12
				13-15	14-16

TOTAL HOURS - 120

Horticulture Elective Group 1 and 2: see adviser for approved course listing.

Curriculum in Landscape Horticulture

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	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 OR	3	**
MATH	1150		Pre-Calculus Algebra & Trig	4	**
			Core History I & II	3	3
HORT	1010		Introduction to Horticulture	1	**
				14-15	14
SO					
ECON	2020		Microeconomics	3	**
ENGL	2200	2210	Great Books I & II	3	3
			Core Philosophy	**	3
		1000	Public Speaking	**	3
COMM			Introductory Soils	4	**
AGRN	2040		Microcomp App in Agriculture	3	**
AGEC	2100		Social Science Group 1	3	**
HORT	2240		Plant Propagation	**	3
HORT	3210		Small Trees, Shrubs & Vines	**	4
				16	16
JR					
			Core Fine Arts	**	3
PLPA	3000		General Plant Pathology	4	**
AGRN	3150		Turfgrass Management	4	**
ENTM		4020	Economic Entomology	**	4
HORT	3000		Growth & Develop of Hort Plants	3	**
HORT	3220		Arboriculture	4	**
HORT	3950		Careers in Horticulture	1	**
HORT	4100		Herbaceous Ornamentals	**	4
HORT	4270		Intermediate Landscape Design	**	3
				16	14

SR

HORT	6210		Landscape Bid, Install & Maint	**	4
			Horticulture Elective Group 1	6-8	**
			Horticulture Elective Group 2	3-4	3-4
			Electives	2-5	7-8
				14-15	14-16

TOTAL HOURS - 120

Horticulture Elective Group 1 and 2: see adviser for approved course listing.

Curriculum in Fruit & Vegetable Production

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
ENGL	1100	1120	English Composition I & II	3	3
MATH	1130		Math	3	**
			Core Art	**	3
			Core History I & II	3	3
		1000	Public Speaking	**	3
COMM			Introductory Soils	4	**
AGEC	2100		Microcomp App in Agriculture	3	**
HORT	1010		Introduction to Horticulture	1	**
				14	16
SO					
CHEM	1030	1040	Fundamentals of Chemistry I & II	3	3
CHEM	1031	1041	Fundamentals of Chemistry I & II Lab	1	1
ENGL	2200	2210	Great Books I & II	3	3
			Core Philosophy	3	**
		2910	Fund of Accounting	**	3
ACCT			Fruit and Nut Production	**	4
HORT	2010		Vegetable Production	**	3
HORT	2030		Plant Propagation	**	4
HORT	2240			14	17
JR					
AGEC		2100	Microcomp. App in Agriculture	**	3
PLPA	3000		Plant Pathology	4	**
ENTM		4020	Economic Entomology	**	4
			Social Science Group 1 & 2	3	3
			Horticulture Group 1 or 2	3-4	3-4
HORT	3000		Growth & Dev of Hort Plants	3	**
HORT	4120		Small Fruit & Pecan Culture	**	3
				13-14	16-17
SUMMER					
HORT	4110		Tree Fruit Culture	3	

SR

HORT	4130		Sustain Veg Crop Production	3	**
HORT	4140		Postharvest Biology & Tech	3	**
			Horticulture Elective Group 1 or 2	3-4	3-4
AGRN	2040		Intro to Soils	**	4
			Electives	3-5	5-6
				12-15	12-14

TOTAL HOURS - 120

Horticulture Elective Group 1 and 2: see adviser for approved course listing.

Poultry Science (POUL)

This curriculum is designed to develop technical, analytical, communication, business and management skills needed for advancement to leadership positions in the live poultry production, poultry food product 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 poultry production and the production of nutritious, wholesome and safe poultry products for the modern consumer. Professional and general electives allow students to pursue expertise in their individual area of interest. Although not specifically required, enrollment in summer internship is encouraged and accepted as professional elective credit.

Curriculum in Poultry Science

FR	F	S		F	S
AGEC		2100	Microcomp in Agriculture	**	3
CHEM	1030	1040	Introduction to Chemistry I & II	3	3
CHEM	1031	1041	Introduction to Chemistry I & II Lab	1	1
COMM		1000	Public Speaking	**	3
ENGL	1110	1120	English Composition I & II	3	3
MATH	1130		Pre-Calculus w/Trigonometry	3	**
			Social Science Group I	**	3
POUL	1000		Introductory Poultry Science	3	**
				13	16

SO					
BIOL	1020	Principles of Biology	4	**	
BIOL		1030 Organismal Biology	**	4	
ECON		2020 Microeconomics	**	3	
ENGL	2200	2210 Great Books I & II	3	3	
PHYS		1000 Foundations of Physics	**	4	
		Core History	3	3	
		Core Philosophy	3	**	
CHEM	2030	Survey Organic Chemistry	3	**	
			16	17	
JR					
		Core Fine Arts	3	**	
BCHE		3200 Principles of Biochemistry	**	3	
POUL	3030	Comm Poultry Production	4	**	
POUL	3150	Poultry Physiology	**	4	
POUL	3060	Brd, Frt, & Htch	**	4	
STAT	2510	Introduction to Statistics	3	**	
		Professional Electives	4	4	
			14	15	
SR					
AGEC	6000	Agribusiness Management	**	3	
COMM	2410 or ENGL 3040 or ENGL 3080	**	3	
BIOL	3200	Microbiology	4	**	
POUL	4050	Poultry Feeding	4	**	
POUL	4080	Poultry Health	**	3	
POUL	4110	Proc & Market	3	**	
POUL	4160	Pinciple Food Safety	**	3	
		General Electives	**	2	
		Professional Electives	4	**	
			15	14	

TOTAL HOURS - 120

Professional electives see adviser for approved list.

Poultry Science Pre-Veterinary Medicine

This curriculum develops technical, analytical and communication skills, as well as the broad scientific knowledge base needed for success in technical and research positions in the poultry and allied industries, or post-graduate programs leading to advanced degrees in the sciences; such as, the Master of Science, Doctor of Philosophy or Doctor of Veterinary Medicine. Courses listed for the first six semesters (91 hours) satisfy requirements for admission to the College of Veterinary Medicine. Completion of the remaining requirements or one year in the College of Veterinary Medicine entitles the student to a B.S. degree in Poultry Science.

Curriculum in Poultry Science/Pre-Veterinary Medicine

FR	F	S		F	S
BIOL	1020		Principles of Biology	4	**
BIOL		1030	Organismal Biology	**	4
CHEM	1030	1040	Introduction to Chemistry I & II	3	3
CHEM	1031	1041	Introduction to Chemistry I & II Lab	1	1
MATH	1130		Pre-Calculus w/Trigonometry	3	**
ENGL	1110	1120	English Composition I & II	3	3
POUL		1000	Introductory Poultry Science	**	3
				14	14
SO					
ENGL	2200	2210	Great Books I & II	3	3
			Core History	3	3
			Core Fine Arts	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
			Social Science Group I	3	**
				16	16
JR					
PHYS	1500	1510	Gen. Physics I & II	3	3
PHYS	1500	1510	Gen. Physics I & II	1	1
BCHE	3200		Principles of Biochemistry	3	**
BIOL	3000		Genetics	4	**
BIOL	3200		Microbiology	**	4
POUL	3030		Comm Poul Production	4	**
POUL		3060	Brd, Frt, & Htch	**	4
POUL		3150	Poultry Physiol	**	4
				15	16
SR					
AGEC		2100	Microcomp. App. in Agriculture	**	3
STAT		2510	Statistics	**	3
COMM	1000		Public Speaking	3	**
POUL	4050		Poultry Feeding	4	**
POUL		4160	Principle Food Safety	**	3
POUL	4110		Process & Market	3	**
POUL		4080	Poultry Health	**	3
			General Elective	4	3
				14	15

TOTAL HOURS - 120

Professional electives see adviser for approved list.