Two Year, Non-Degree Curricula

in

Agriculture

for

Veterans

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On the Cover—

Three fine heifers form the nucleus of a Guernsey herd at the Florida Experiment Station. President John J. Tigert, right center, and Agricultural College Dean H. Harold Hume, left center, inspecting the animals, which are held by students.

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INFORMATION FOR VETERANS

As demobilization accelerates, more and more ex-service men will enter college, some to begin college work, some to resume interrupted programs and others to seek special types of training for specific jobs. In so far as its facilities permit, the University of Florida is preparing to serve all these groups. Publications are available describing offerings other than the non-degree Agricultural curricula which are outlined in this bulletin.

A veteran with an involved problem concerning admission, credits from other institutions, college program desired, or anything else, should come to the campus for necessary conferences with University officials before registration day. Since men are released from the service every day, many will have time to adequately plan and avoid the rush of opening day. During the semester, officials have time to check rather thoroughly with each individual.

There has been appointed a member of the University staff as Veterans' Counselor, Assistant Dean J. Ed Price, whom the veteran is invited to contact if he has any problem to discuss or questions to ask. Dean Price is located in Room 3, Language Hall.

Our experience to date has indicated that most veterans planning to enter the University of Florida, regardless of the type of program they desire, have several common questions. This section is devoted to answers to questions most frequently asked by veterans.

How does the veteran gain admission to the University?

See the section on ADMISSION. Request the proper application as described there. Application should be made before coming to Gainesville.

Can a veteran who has not graduated from high school enter the non-degree program?

Such veterans will be admitted.

Does the University provide housing facilities for veterans with families?

Efforts are being made to arrange for University operated or supervised living quarters for veterans with families. At the present time some accommodations can be made available in the University dormitories but these would not include housekeeping facilities. It is hoped that in the near future some family units can be obtained by the University. The Office of the Dean of Students will maintain a list of apartments and small houses available adjacent to the campus. A veteran planning to bring his family is urged to correspond with the Dean of Students well in advance of enrollment for assistance in this connection.

Who is eligible for benefits under the GI Bill of Rights (Public Law 346)?

Any veteran with a discharge other than dishonorable who has 90 days or more of active military service (exclusive of time spent in the ASTP, the Navy V-12, or as a cadet at one of the service academies) and who was less than 25 years of age at the time of entering the service (September, 1940, or after) is eligible. If the veteran is over 25 years of age at the time of entering the service, he must furnish proof that his education was interrupted to become eligible under the GI Bill.

How does a veteran apply for benefits under the GI Bill?

Application must be made on a special form. This form can be obtained from the University, any Veterans Administration office or from such service groups as the Red Cross, veterans' organizations, etc. The veteran should procure the form, execute it before a notary public and send it to the Registrar of the University, accompanied by a certified copy of his discharge or certificate of service. (The original discharge may be sent if it is difficult to have a copy made. The University

will make a certified copy and forward it with the application. If this method is used, the original document should be sent by registered mail.)

What benefits are available under the GI Bill?

A qualified veteran receives tuition, fees, books and training materials up to $500 for an academic year of nine calendar months (these expenses at the University of Florida are less than $500 for the academic year) and a subsistence allotment in the amount of $50 per month if single, $75 per month with dependents.

Can any portion of the $500 per year allowed by the Government be used to pay for board and room?

No. $500 is the maximum paid to the institution by the Government for tuition, fees, books, etc., not an allotment to the veteran for those expenses. Personal expenses of the veteran including board and room are his own responsibility. His subsistence allotment should provide for these expenses in most cases.

How long can a veteran attend the University under the GI Bill?

The qualified veteran is entitled to one year of education or training. Satisfactory completion of that year entitles him to an additional period not to exceed the time spent in active service after September 16, 1940. The total period may in no event exceed four years (the Veterans Administration regards the term "year" as used above as a calendar year of twelve months).

Who is eligible for benefits under the Vocational Rehabilitation Law (Public Law 16)?

An honorably discharged veteran with a service connected, pensionable disability that produced a vocational handicap is eligible. The provisions of this law are somewhat complex and eligibility can be determined only by the Veterans Administration. A veteran who feels that he might qualify is advised to consult officials of the Veterans Administration.

What fields of study are open to veterans under Public Law 16?

A Veterans Administration approved program that trains one for the vocation selected by the veteran and the officials of the Veterans Administration. The training must be directly preparatory for a specified employment objective.

What benefits are available under Public Law 16?

The Government pays costs of training (fees, tuition, books, etc.) directly to the institution and allowances to the veteran for living and personal expenses that vary with the type of disability, dependants, etc.

GENERAL INFORMATION

EXPENSES

REGISTRATION FEES	1st Sem.	2nd Sem.
Undergraduate Students	$ 50.00	$ 50.00
All Non-Florida Students Pay Additional	100.00	100.00

DESCRIPTION OF REGISTRATION FEES

Registration Fees listed in the above table include the following:

Contingent Fee.—A fee of $27.50 per semester is charged every student.

Special Fee.—A fee of $2.50 per semester is required of each student for the construction and rehabilitation of buildings.

Infirmary Fee.—All students are charged an Infirmary Fee of $7.50 per semester which secures for the student, in case of illness, the privilege of a bed in the Infirmary and the services of the University Physician and the professionally trained nurses, except in cases involving a major operation.

Student Activity Fee.—A fee of $24.00 is assessed to maintain and foster athletic sports, student publications, and other student activities. $12.00 of this fee is paid the first semester, and $12.00 is paid the second. Student fees are passed by a vote of the student body and approved by the Board of Control before they are adopted.

Swimming Pool Fee.—A fee of 50 cents per semester is charged all students for use of the lockers and supplies at the swimming pool.

SPECIAL FEES

Fees which apply in special cases only are listed below:

Breakage Fee.—Any student registering for a course requiring locker and laboratory apparatus in one or more of the following departments is required to buy a breakage book: Chemistry, Pharmacy, Biology, and Soils. This book costs $5.00. A refund will be allowed on any unused portion at the end of the year, when the student has checked in his apparatus to the satisfaction of the departments concerned.

Room Reservation Fee.—Students wishing to reserve rooms in the Residence Halls must pay a room reservation fee of $10 at the time such reservation is made.

Special Infirmary Charges.—A student requiring an emergency operation, which is not covered by the fee assessed, may employ the services of any accredited physician whom he may select, and utilize the facilities of the Infirmary for the operation. To secure this medical service the student must report to the physician in charge of the Infirmary. When operating room is used a fee of $5 is charged. Board in the Infirmary is charged at the rate of $1 a day.

Library Fines.—A fine of 2 cents a day is charged for each book in general circulation which is not returned within the limit of two weeks. "Reserve" books may be checked out overnight, and if they are not returned on time the fine is 25 cents for the first hour and 5 cents an hour or fraction of an hour thereafter until they are returned. No student may check out a book if he owes the Library more than 50 cents in fines.

FEES FOR PART-TIME STUDENTS

Students who carry nine hours or less will be charged a contingent fee of $25.00 a semester, the infirmary fee of $7.50 a semester and special fee of $2.50 a semester. Such

students must pay any tuition which their classification specifies. Such students are not entitled to any of the privileges attached to any other University fee.

PAYMENT OF FEES

Fees are payable as a part of the registration procedure except for the Non-Florida Fee for the first semester of attendance which must be sent to the Office of the Registrar before the applicant may be issued an Admission Certificate; the Room Reservation Fee which must accompany the Application for Room Reservation and be sent to the Director of Residence; and Special Fees which are payable at the time that the student expects to receive the service for which the fee is assessed. Failure to pay fees when due makes registration incomplete and will result in assessment of the $5 late registration fee.

If any remittance is made by mail it must be accompanied by the full name of the student concerned and a notation concerning the fee or fees being paid. All remittances must be made payable to the University of Florida and sent to the Office of the Business Manager except as noted above. The Office of the Business Manager will issue receipts for all funds received which will indicate the purpose of payment. Students are cautioned to preserve these receipts and have them available for examination by any University official concerned.

REFUND OF FEES

Students resigning before the dates specified in the University Calendar are entitled to a refund of all fees except $5 of the contingent fee. This $5 is the cost of service in registering the student and is never refunded.

OTHER EXPENSES

Room Rent.—Rent for rooms in the Residence Halls varies from $32.00 to $45.00 per student per semester. Remittances for Room Rent should be made in accordance with the directions issued by the Director of Residence. (See page 14.) If the student does not reside in one of the units of the Residence Hall System the arrangements concerning rates and method of payment are the responsibility of the individuals concerned.

Meals.—Cost of meals in the University Cafeteria varies with the individual. Books of coupons having cash value may be purchased from the Office of the Business Manager or meals may be paid for in cash.

The P. K. Yonge Cafeteria, located in the Yonge Building serves noon day meals five days each week, and offers to University students high quality food at reasonable prices.

The University Soda Fountain, located in the basement of Florida Union, offers strictly fountain service, all kinds of sandwiches, candies, tobaccos, etc.

Books and Supplies.—Cost of these items varies with the program of the student. It is estimated that from $30.00 to $50.00 per year will cover this expense for most students.

SUMMARY OF EXPENSES FOR THE YEAR

	Minimum	Maximum
General Fees and Course Expenses	$100.00*	$100.00*
Books and Training Supplies for the Year	30.00	50.00
Laundry and Cleaning	25.00	35.00
Room and Board	360.00	450.00
Estimated Total Expenses	$515.00	$635.00

*Non-Florida students are charged $200 tuition per year in addition.

TUITION

No tuition, except in the College of Law, is charged Florida students.

Non-Florida students, including those pursuing graduate work, pay tuition of $100.00 per semester in addition to the fees charged Florida students.

Classification of Students.—For the purpose of assessing tuition, students are classified as Florida and non-Florida students.

A Florida student, if under twenty-one years of age, is one: (1) whose parents have been residents of Florida for at least twelve consecutive months next preceding his registration; or (2) whose parents were residents of Florida at the time of their death, and who has not acquired residence in another state; or (3) whose parents were not residents of Florida at the time of their death but whose successor natural guardian has been a resident of Florida for at least twelve consecutive months next preceding the student's registration.

A Florida student, if over twenty-one years of age, is one: (1) whose parents are residents of Florida (or were at the time of their death) and who has not acquired residence in another state; or (2) who, while an adult, has been a resident of Florida for at least twelve consecutive months next preceding his registration, provided such residence has not been acquired while attending any school or college in Florida; or (3) who is the wife of a man who has been a resident of Florida for at least twelve consecutive months next preceding her registration; or (4) who is an alien who has taken out his first citizenship papers and who has been a resident of Florida for at least twelve consecutive months next preceding his registration.

All students not able to qualify as Florida students are classified as non-Florida students.

The status of the classification of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents move to and become legal residents of this State, by maintaining such residence for twelve consecutive months. If the status of a student changes from a non-Florida student to a Florida student, his classification may be changed at the next registration thereafter.

ADMISSION

The veteran contemplating entering the University of Florida for the purpose of pursuing one of the non-degree Agricultural curricula should request application forms from the Office of the Registrar. High School graduation is not required but records of all previous educational achievement must be filed with the application for admission. The original request for forms should indicate clearly that the prospective student wishes to enroll in the non-degree program and should also give a brief summary of previous education.

AGRICULTURAL COURSES FOR VETERANS*

Realizing that many war veterans may desire special training in certain fields to assist them in obtaining employment following their return to civilian life, the College of Agriculture of the University of Florida is offering instruction in the fields of General Agriculture, Animal Production, Pest Control, Dairy Manufacturing, Horticulture, Poultry Husbandry and Forestry. Students desiring training in any of these fields for self-improvement so that they may manage their operations to better advantage will find these courses helpful. Furthermore, it is believed that there will be certain individuals

*These courses are outlined to meet the needs of veterans, but they are open to others who may desire short time training.

who for some reason cannot spend more than two years in a training program. For such veterans, the College of Agriculture has arranged the courses described in this bulletin.

As has been indicated previously, the courses outlined herein cover a two-year period. It is assumed that those desiring more detailed instruction in scientific agriculture and whose education has taken them through high school or beyond, will elect the regular four-year course in the particular field in which they are interested.

Florida offers many opportunities in various fields of agriculture. Within recent years, improved strains of corn and oats have been developed through the work of the Agricultural Experiment Station. With increased production of field crops, future livestock production in this state will be placed on a more stable basis than in years past.

Much attention has been given to soil conservation and fertilization of crops, groves and pastures during the past few years. With the conservation practices being followed at the present time and with the information available on the proper use of fertilizers, the production of field crops and pastures is more certain at the present time than in past years.

Florida does not furnish sufficient beef, pork, poultry, eggs and dairy products from local sources to meet the demands of home markets. Long grazing seasons on improved pastures make possible an increased production of beef and milk. Millions of acres of land in Florida could be put in improved pastures, thereby expanding beef and milk production.

Due to the limited production of milk in Florida during the 10-year period preceding the war, which provided only enough to supply the demand for fluid milk, little attention was given to the manufacture of dairy products other than ice cream. During this period practically all of the dairy products used in ice cream were shipped into the state. With increased milk production, however, more attention may be given in the future to the manufacture of dairy products, such as butter, cheese, condensed milk and milk powder.

Florida is a deficit poultry producing state and the importation of large quantities of eggs, broilers and fryers is necessary to fill local demands. Due to the mild climate, poultry production in this state is quite different from that practiced in other states where greater protection must be given birds during the winter months. With available low priced land in this state, it is possible to practice rotation of yards and range to a greater extent than in states where land prices are higher.

The control of household and storage pests through modern extermination methods has advanced rapidly in the past ten years. Structural pest control operators are located in all major cities of the United States, where they determine the nature and extent of damage caused by various household pests and correct these problems in homes and commercial buildings. It is a relatively new field that offers good opportunities for interested persons.

Florida ranks high as a fruit and vegetable producing state and there will be continuing need for men trained in these fields as well as in other specialty branches of horticulture. In particular there is opportunity for small nurserymen to operate successfully.

Florida's 20 million acres of forest land and her forest industries—naval stores, paper, rayon, lumber, poles and piling, and wood preservation—which have always been valuable assets of the State, appear to be headed for increasing importance in the future. Research, which found southern pines suitable for paper and thus brought six large paper mills to the state in approximately ten years, will find new uses for wood and thereby bring new industries here. To perpetuate these industries, the forest lands must be brought to fuller production. To develop the forest assets as fully as possible, trained men are needed to protect and manage the forest lands and to work in various capacities in the forest industries.

In pursuing the program outlined herein, emphasis will be placed upon the practical phase of instruction in all courses given. Veterans will have opportunity to discuss their problems with instructors at all times in the various fields of agriculture. Those desiring employment will be assisted by the Dean and the staff members in the particular field in which the major work is taken.

Instruction during the first year will be the same for all veterans desiring to take General Agriculture, Animal Production, Dairy Manufacturing, Poultry Husbandry, Horticulture, and Structural Pest Control. Veterans taking Forestry will have a special program throughout the entire two years of instruction.

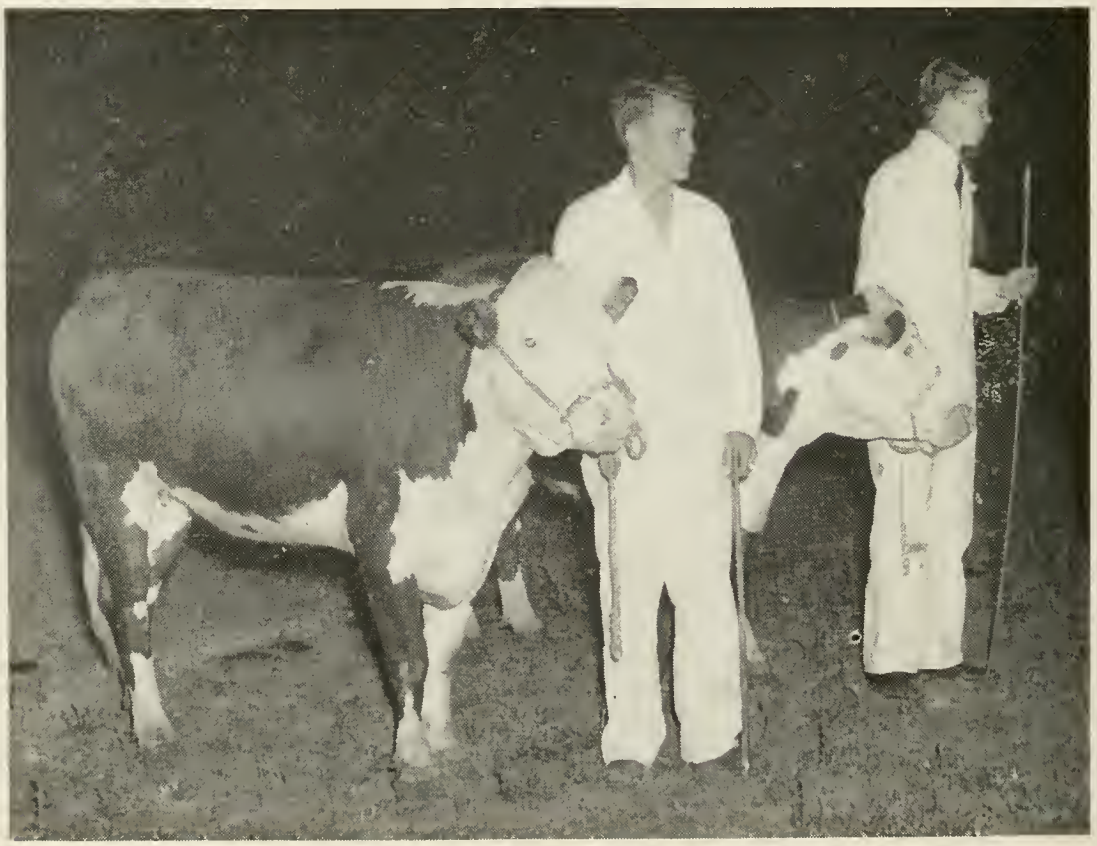
CURRICULA

First Year

(For all programs except Forestry)

		First Semester	Clock Hrs. Per Week
Gl.	21	General Agricultural Science	4
Ms.	21	Arithmetic	4
Eh.	21	Grammar	3
Al.	21	Breeds and Classes of Farm Animals	4
Bty.	23	Botany	5
Ey.	21	General Entomology	3
			23

		Second Semester	Clock Hrs. Per Week
Gl.	22	General Agricultural Science	4
He.	22	General Horticulture	4
Eh.	22	Composition	3
Py.	24	Farm Poultry	4
Ag.	22	Farm Mechanics	4
Dy.	24	Dairy Elements	4
			23



Future cattlemen exhibiting cattle they have groomed and trained as part of the program in animal production.

Second Year

GENERAL AGRICULTURE

Courses offered in the field of General Agriculture are planned to give veterans a broad training in general farming activities. Certain sections of the state are classified as general farming areas in which numerous field and grazing crops may be produced. Veterans taking these courses should receive sufficient training to enable them to obtain employment as farm managers in the general farming area or to prepare themselves to operate their own farms more efficiently.

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
As.	31	Managing the Farm	4	As.	32	Farm Marketing	4
Sls.	33	Farm Soils	4	Ay.	34	Southern Forage and Conservation Crops	4
Fy.	45	Woodlot Forestry	4	Ag.	32	Farm Equipment	4
Pt.	31	Plant Disease Control	3	He.	32	Vegetable Growing	4
Ay.	33	Southern Field Crops	4			Electives	8
		Electives	5				
			24				24

Second Year

ANIMAL PRODUCTION

Courses offered under Animal Production are planned to train veterans in the handling of beef and dairy cattle. Feeding and management of herds are emphasized. Veterans pursuing this program should be in a position to obtain employment as herdsmen in beef and dairy herds. The training received should enable veterans to manage their own livestock operations more efficiently in the event they plan to engage in livestock farming.

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
Al.	32	Judging and Selection of Farm Animals	5	Ay.	34	Southern Forage and Conservation Crops	4
Al.	31	Feeding Farm Animals	5	Al.	38	Farm Sanitation	3
As.	31	Managing the Farm	4	Al.	34	Breeding of Farm Animals	2
Dy.	33	Managing Dairy Cattle	4	Dy.	38	Farm Milk Production	4
Ay.	33	Southern Field Crops	4	Al.	36	Livestock Production Management	4
				Py.	32	Managing the Farm Poultry Flock	6
				Ag.	32	Farm Equipment	4
			22				27

Second Year

DAIRY MANUFACTURING

Before the war there was an unfilled need for men trained in the field of dairy manufacturing in the producer-distributor dairies and milk and ice cream plants throughout the state. Due to the impetus of the war, great expansion has taken place in the dairy products field in many sections of the state and with the prospects of continued increase in the population of the state during the early post war years, the expansion program will be maintained and probably will be increased. Workers trained in the handling of essential food products have seldom wanted for employment regardless of economic conditions.

With increased milk production throughout the south, leading to the establishment of plants to manufacture butter, cheese, condensed milk and milk powder from the surplus milk, the demand for men trained in this work should increase materially.

The Dairy Products Laboratory at the University of Florida offers excellent facilities for the training of workers for those jobs. The laboratory operates on a limited commercial scale which together with class room work offers a well rounded program for such training.

	First Semester	Clock Hrs. Per Week
Dy. 33	Managing Dairy Cattle	4
Dy. 35	Dairy Plant Operation	10
As. 31	Managing the Farm	4
Bcy. 31	Bacteriology	5
	Electives	6
		29

	Second Semester	Clock Hrs. Per Week
Dy. 38	Farm Milk Production	4
Dy. 36	Dairy Plant Operation	10
As. 32	Farm Marketing	4
Ag. 32	Farm Equipment	4
Bcy. 34	Practical Bacteriology of Dairy Products	5
	Electives	3
		30

Working with dairy cattle—one of the practical laboratories in dairying.

Second Year

POULTRY HUSBANDRY

The courses in poultry husbandry are designed to give veterans training in incubation and thereby qualify them for a job in a commercial baby chick hatchery or for the operation of a hatchery of their own. Training for the operation of a poultry breeding farm and in commercial egg production will be stressed. Instruction in commercial broiler production, and in the grading, distribution and marketing of eggs and poultry will be given.

	First Semester	Clock Hrs. Per Week
Sls. 33	Farm Soils	4
As. 31	Managing the Farm	4
Py. 31	Managing the Farm Poultry Flock	6
Py. 33	Poultry Plant Operation	6
	Electives	6
		26

	Second Semester	Clock Hrs. Per Week
Ag. 32	Farm Equipment	4
Dy. 38	Farm Milk Production	4
Py. 32	Managing the Farm Poultry Flock	6
Py. 36	Poultry Sanitation and Disease Control	4
Py. 34	Poultry Plant Operation	6
	Electives	3
		27

Second Year

STRUCTURAL PEST CONTROL

Since the field of Pest Control is a relatively new field, there is great need for persons trained along these lines. Veterans pursuing this course of study will be trained in the practical and scientific phases of this work. Such training should qualify them for employment in well established firms in pest control operations or for the establishment of their own firms in this field.

		First Semester	Clock Hrs. Per Week
Ey.	31	Insect Structure	4
Ey.	35	Pest Control	4
Ey.	33	Domestic and Storage Pests	3
Ey.	38	Environmental Sanitation	3
Ag.	33	Building Construction Analysis	3
		Electives	3
			20

		Second Semester	Clock Hrs. Per Week
Ey.	32	Insect Identification	4
Ey.	34	Insect Environment and Behavior	3
Ey.	36	Insects and Health	4
Ag.	34	Building Equipment Analysis	3
Bcy.	36	Sanitary Practices	3
		Electives	3
			20

Second Year

HORTICULTURE

Horticultural courses offered are planned to assist students in fruit and vegetable growing and in the production of many special crops for which Florida is noted. With increased population and new means of transportation, Florida in the post war period will be in position to develop new phases of horticultural industries. Nursery work is particularly well suited to the man with little capital and short technical training.

		First Semester	Clock Hrs. Per Week
As.	31	Managing the Farm	4
Sls.	33	Farm Soils	4
Fy.	45	Woodlot Forestry	4
Pt.	31	Plant Disease Control	3
Ay.	33	Southern Field Crops	4
He.	31	Citrus Growing	5
			24

		Second Semester	Clock Hrs. Per Week
As.	32	Farm Marketing	4
Ay.	34	Southern Forage and Conservation Crops	4
Ag.	32	Farm Equipment	4
He.	32	Vegetable Growing	4
He.	34	Nursery Practices	4
		Electives	5
			25

FORESTRY

The program in Forestry is designed to equip men to operate their own forest properties or to serve as log scalers, timber cruisers, lumber graders, forest nursery operators, or assistants to forest property managers. A special facility for instruction is the Austin Cary Forest located a short distance from the University. Here students are given opportunity for practical work in Forestry.

The vocational aspects of the training are emphasized so that upon completion of the program the veteran will have confidence in his ability to fit into a practical forestry job.

First Year

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
Gl.	21	General Agricultural Sciences	4	Gl.	22	General Agricultural Sciences	4
Fy.	21	Southern Forestry	3	Fy.	22	Southern Forestry	3
Ms.	21	Arithmetic	4	Fy.	28	Forest Fire Protection	3
Eh.	21	Grammar	3	Eh.	22	Composition	3
Bty.	23	Botany	5	Fy.	24	Tree Identification	5
Fy.	25	Measurement of Forest Products	4	Fy.	26	Timber Survey and Maps	5
			23				23

Second Year

		First Semester	Clock Hrs. Per Week			Second Semester	Clock Hrs. Per Week
Fy.	31	Lumber Seasoning and Wood Preservation	4	Fy.	32	Timber Harvesting	6
Fy.	33	Wood Identification and Lumber Grading	5	Fy.	34	Naval Stores Operations	6
Fy.	35	Timber Growing	5	Fy.	36	Forest Thinning	6
Fy.	37	Forest Products and Marketing	3	Fy.	38	Forest Equipment	6
Fy.	39	Forest Property Administration	2	Fy.	40	Forest Road and Building Maintenance	6
		Elective*	6 to 12	Fy.	42	Saw Mill Operation	6
				Fy.	44	Forest Nursery Operation	6
			25 to 31				42

*To be chosen from: Logging, Sawmills, Forest Wildlife, Farm Soils, Southern Field Crops, Breeds and Classes of Farm Animals, General Entomology, Farm Management, General Horticulture, Plant Disease Control, Internal Combustion Engines.

OUTLINE OF COURSES

AGRICULTURAL ECONOMICS

As. 31.—Managing the Farm. 2 hours lecture and discussion, and 2 hours laboratory per week.

Farming as a business; factors for successful operation, such as size of business, rates of production, labor efficiency, and combination of enterprises; types of farming; farm layouts; farm reorganization; forms of tenure and leases; choosing and buying a farm. One or two field trips at an estimated cost of $5 each to be paid by the student at the time trips are made.

As. 32.—Farm Marketing. 2 hours lecture and discussion, and 2 hours laboratory per week.

A study of the marketing of agricultural commodities at the farm and shipping point level. Particular emphasis will be given to the distribution, grade-standards, inspection, use of market news, and use of marketing and production credit. One or two field trips at an estimated cost of $4 each to be paid by the student at the time trips are made.

Class in Agronomy studying sugar cane varieties.

AGRICULTURAL ENGINEERING

Ag. 22.—Farm Mechanics. 2 hours lecture and 2 hours laboratory per week.

Shop practice in jobs that are common to agriculture such as building construction, machinery repair, and power transmission. Laboratory exercises consisting of actual job performance are part of the instruction.

Ag. 32.—Farm Equipment. 2 hours lecture and 2 hours laboratory per week.

The equipment used in the production, harvesting and marketing of farm crops. Laboratory exercises to supplement class instruction.

AGRONOMY

Ay. 33.—Southern Field Crops. 2 hours lecture and 2 hours laboratory and field demonstrations per week.

A study of the field crops of the southern United States—the grain crops, cotton, tobacco, sugarcane, sweet potatoes, peanuts, and miscellaneous crops, with emphasis on varieties and practices for Florida. Good seed and crop improvement methods, and crops for conservation and rotation systems are discussed.

Ay. 34.—Southern Forage and Conservation Crops. 2 hours lecture and 2 hours laboratory and field demonstration per week.

A study of these plants common to the South that provide grazing and harvested forage for livestock, and soil conservation crops and cropping practices suited to Florida are considered.

Students in Agronomy pollenizing grasses.

ANIMAL PRODUCTION

Al. 21.—Breeds and Classes of Farm Animals. 2 hours lecture and 2 hours laboratory per week.

The importance of livestock production in the agricultural program for Florida; breeds of beef cattle, dairy cattle, swine, horses, and sheep; principles of livestock improvement; selection of breeding and feeding stocks; livestock management; and methods of marketing livestock.

Al. 31.—Feeding Farm Animals. 3 hours lecture and 2 hours laboratory per week.

The structure of feeds; how the animal makes use of feeds; the kinds of feeds needed for growth, fattening and to supply the everyday needs of the body; the only combination of feeds to make a balanced ration; and the importance of mineral mixtures for livestock.

Al. 32.—Judging and Selection of Farm Animals. 1 hour lecture and 4 hours laboratory per week.

A study of the various points of the animal; how the points appear in a perfect animal; actual practice in judging beef cattle, dairy cattle, horses and swine to observe the points of these animals; to compare animals having strong points with those having weak points; and how to select animals with strong points for breeding purposes.

A student participating in the Annual Livestock Show and Rodeo.

Al. 34.—Breeding of Farm Animals. 2 hours lecture per week.

The meaning of grade-breeding, cross-breeding, inbreeding, line breeding, out-crossing, and the breeding of purebred animals; the reproductive organs and development of the young; the breeding season and the importance of adhering to a definite breeding program in the management of farm animals.

Al. 36.—Livestock Production Management. 2 hours lecture and 2 hours laboratory per week.

The management of breed cattle including pasture rotation, water supply, use of mineral supplements, the breeding season, castration, separation of heifers, and care of herd bull; swine management including water supply, shade, shelter, the breeding season, care of the brood sow at farrowing time, care of pigs, castration of male pigs, vaccination against hog cholera, and the management of the herd boar.

Al. 38.—Farm Sanitation. 3 hours lecture per week.

The part germs play in producing diseases of animals and man; a safe water supply for the farm home; sanitary privies; disinfectants and how to use them; control of diseases through sanitation.

BACTERIOLOGY

Bcy. 31.—Bateriology. 1 hour recitation and 4 hours laboratory per week.

This course is intended to give information on the occurrence and distribution of the different kinds of bacteria, requirements for their growth in nature and controlled conditions, their relation to health and disease of man, animals, plants, soil fertility, household and farm sanitation, and their use in certain industries.

Bcy. 34.—Practical Bacteriology of Dairy Products. 1 hour recitation and 4 hours laboratory per week.

Consideration will be given to the sources and kinds of micro-organisms in milk and dairy products; how to isolate and utilize desirable forms in the manufacture of dairy products, and prevent the activities of the undesirable ones.

Bcy. 36.—Sanitary Practices. 2 hours recitation and 2 hours laboratory per week.

Problems in public sanitary practices.

BOTANY

Bty. 23.—Botany. 1 hour recitation and 4 hours laboratory per week.

This course will acquaint the student with the principal parts of seed plants, their functions, and the influence of physical factors of their environment upon them. This study will be integrated with courses in agronomy, forestry, horticulture, pharmacy, and general agriculture.

DAIRYING

Dy. 24.—Dairy Elements. 2 hours lecture and 2 hours laboratory per week.

The make-up of milk; the food value of milk; farm methods of handling milk from sanitation standpoint; dairy cattle breeds; selection of desirable cows for milk production; the breeding and raising of dairy cattle.

Dy. 33.—Managing Dairy Cattle. 2 hours lecture and 2 hours laboratory per week.

Feeding practices for dairy cattle; raising of calves and heifers; water supply; age to breed dairy heifers; and care of herd bull.

Dy. 35-36.—Dairy Plant Operation. 2 hours lecture and 8 hours laboratory per week.

Practical work in the dairy products laboratory including the weighing, sampling, pasteurization, cooling and bottling of milk; washing of milk utensils; care of machinery in a dairy plant and the manufacture of ice cream and other milk products.

Dy. 38.—Farm Milk Production. 2 hours lecture and 2 hours laboratory per week.

Importance of pastures in milk production in Florida; make-up of rations for the dry cow; milking practices and the handling of milk when freshly drawn from the cow.

ENTOMOLOGY

Ey. 21.—General Entomology. 3 hours lecture per week.

A study of the basic principles of entomology.

Ey. 31.—Insect Structure. 3 hours lecture per week.

This course is a practical course in insect structure as it pertains to insect control. Lectures and demonstrations deal with the external skeleton, wings, legs, and body parts; as well as all internal systems such as circulatory, respiratory, muscular, nervous, and reproductive. Life stages as they relate to control will also be considered.

Ey. 32.—Insect Identification. 2 hours lecture and 2 hours laboratory per week.

A brief study of the fundamental principles of insect identification. The remainder of the course deals with actual practice of identifying insects of economic importance.

Ey. 33.—Domestic and Storage Pests. 3 hours lecture per week.

This course considers the broad principles of structural pest control. It includes a detailed study of the life histories and habits of household and storage pests.

Ey. 34.—Insect Environment and Behavior. 3 hours lecture per week.

A study is made of the various places where insects live and their behavior under these conditions.

Ey. 35.—Pest Control. 2 hours lecture and 2 hours laboratory per week.

The course in insect control deals primarily with the chemical phases of control. It consists of a review of older methods and a detailed study of the modern method and materials employed. Consideration is given fumigation, contact poisons, stomach poisons, and repellants. Special emphasis is placed upon the materials employed by the commercial pest control operator and the producer of agricultural crops.

Ey. 36.—Insects and Health. 2 hours lecture and 2 hours laboratory per week.

A study of insects and related pests which affect the health and comfort of man. Primary consideration is given such groups as mosquitoes and their relation to malaria, yellow fever and and dengue fever; lice and their relation to typhus fever; flies and their influence upon typhoid fever; fleas and bubonic plague.

Ey. 38.—Citrus and Vegetable Insects. 3 hours lecture per week.

This course deals with the major insect and related pests of citrus and vegetable crops in the state of Florida.

A detailed study is made of the life histories, habits, biology, and control of such pests. Consideration is also given the beneficial agents such as fungi, parasites, and predators which aid in the control of these pests.

Entrance to the Austin Cary Memorial Forest, one of the Laboratories for Forestry students.

FORESTRY

Fy. 21-22.—Southern Forestry. 3 hours lecture per week for two semesters.

The development of, and opportunities in, forestry in the South. The practice of forestry as applied by state, federal, and private owners of forest land.

Fy. 24.—Tree Identification. 1 hour lecture and 4 hours field work per week.

The classification and identification by field characteristics of the commercial timber species of the United States, together with their distribution.

Fy. 25.—Measurement of Forest Products. 2 hours lecture and 2 hours field work per week.

The various units of measure, such as board foot, cubic foot, and cord, used to measure the volume of forest products. Techniques for measuring forest products in commercial practice.

Fy. 26.—Timber Survey and Maps. 1 hour lecture and 4 hours field work per week.

Methods of measuring the volume of standing timber in terms of various products and of constructing various types of forest stand maps.

Fy. 28.—Forest Fire Protection. 3 hours lecture per week.

The organization of forest fire protection systems and the techniques of forest fire control.

Fy. 31.—Lumber Seasoning and Wood Preservation. 2 hours lecture and 2 hours field work per week.

Handling and treatment of lumber for air-seasoning, and operation of a dry kiln in the Wood Products Laboratory. Practice in treating lumber and timber by pressure and non-pressure methods and a consideration of various chemicals used.

Fy. 32.—Timber Harvesting. 6 hours field work per week.

Use of various tools and machinery used in cutting of saw logs, pulpwood, poles and cross ties.

Treating fence posts. A part of the practical work in Forestry.

Fy. 33.—Wood Identification and Lumber Grading. 1 hour lecture and 4 hours field work per week.

A study of features used in identifying commercial woods and laboratory practice in distinguishing woods by readily detected characteristics. Consideration of standard lumber grades and their application in practice.

Fy. 34.—Naval Stores Operations. 6 hours field work per week.

Practice in the technique of hanging new cups and in the use of hacks and pullers in operating naval stores faces. Operation of a turpentine still.

Fy. 35.—Timber Growing. 1 hour lecture and 4 hours field work per week.

The theory of various cutting methods required to insure satisfactory regeneration and growth of forests. A consideration also of such supplementary measures as forest planting, soil preparation, fertilization, and slash disposal.

Fy. 36.—Forest Thinning. 6 hours field work per week.

The application of thinning and improvement cutting to young forests of slash pine, longleaf pine, and hammock hardwoods to increase growth and improve timber quality.

Fy. 37.—Forest Products and Marketing. 3 hours lecture per week.

The specifications and methods of manufacture of the major forest products. Methods of marketing forest products and the activities of cooperative and other marketing organizations.

Fy. 38.—Forest Equipment. 6 hours field work per week.

Practice in the care and use of axes, saws, tractors, fire line plows, fire pumps and other tools used in the operation of a forest.

Forestry students learning ax shapening at Summer Camp.

Fy. 39.—Forest Property Administration. 2 hours lecture per week.

The legal aspects and the responsibilities of forest property ownership and the organization and administration of small and large forest land holdings.

Fy. 40.—Forest Road and Building Maintenance. 6 hours field work per week.

Practice in simple road surveys, repair of road culverts, and road grading, and in the repair of frame buildings.

Fy. 41.—Sawmills. 3 hours lecture per week.

The organization of a sawmill business and floor plans for sawmills of various sizes and types.

Fy. 42.—Saw Mill Operation. 6 hours field work per week.

Practice in the operation of a small sawmill for cutting lumber and heavy timbers, and in the proper handling of the finished product.

Fy. 43.—Forest Wildlife. 2 hours lecture and 2 hours field work per week.

Description and life habits of animals and birds of the forest, their food and habitat requirements, and plans for land management to handle them as a crop.

Fy. 44.—Forest Nursery Operation. 6 hours field work per week.

Practice in various phases of nursery operation such as seed bed preparation, seeding, watering, weeding, fertilization, lifting and packing of nursery stock.

Fy. 45.—Woodlot Forestry. 2 hours lecture and 2 hours laboratory per week.

Management of the farm woods as a farm resource and proper use and sale of farm timber.

Fy. 47.—Logging. 3 hours lecture per week.

The organization of logging camps and logging operations, and the use of various types of logging equipment as used under varying conditions of timber stand, topography, and weather conditions.

Picking oranges. Field work in a citrus culture course.

HORTICULTURE

He. 22.—General Horticulture. 2 hours recitation and 2 hours laboratory per week.

A study of the basic principles involved in growing fruits, vegetables and flowers and the relationship of climate, soils, cultural methods and pests to the production of horticultural plants.

He. 31.—Citrus Growing. 3 hours lecture and 2 hours practical work per week.

A study of all phases of citrus growing, from planting the seed to marketing of the fruit, including the effects of soil type, root-stock, fertilizer and spraying programs on the quantity and quality of fruit. A citrus grove with many varieties fruiting is available for practical work.

He. 32.—Vegtable Growing. 2 hours lecture and 2 hours practical work per week.

A study of principles and practices in home and commercial production of vegetables, with field work in seeding, cultivating, spraying and harvesting representative vegetables.

He. 34.—Nursery Practices. 2 hours lecture and 2 hours practical work per week.

A study of the methods of growing nursery stocks and of propagating fruit and ornamental trees and shrubs. Practice will be given in both field and greenhouse methods.

POULTRY HUSBANDRY

Py. 24.—Farm Poultry. 2 hours lecture and 2 hours laboratory per week.

Importance of industry; breeds; culling; housing; breeding; hatching; brooding chicks; rearing pullets; managing layers; feeding; marketing; diseases and parasites.

Py. 31-32.—Managing the Farm Poultry Flock. 2 hours lecture and 4 hours laboratory per week.

Practical study of hatchery management; production of broilers and fryers; production of pullets; equipment; layout of farms; costs and returns; practical study of commercial egg farming, and the production of eggs. (This course covers two semesters' work.)

Py. 33-34.—Poultry Plant Operation. 2 hours lecture and 4 hours laboratory per week.

Instruction in the operation of a poultry plant. Practical work will be given at the Poultry Laboratory in the actual handling of all phases of poultry production.

Py. 36.—Poultry Sanitation and Disease Control. 2 hours lecture and 2 hours laboratory per week.

Causes, symptoms, methods of preventions and treatment of diseases and parasites of poultry.

SOILS

Sls. 33.—Farm Soils. 2 hours recitation and 2 hours laboratory per week.

This course presents a simple discussion of practical soil management. All phases of soil management will be treated, including soil adaptability, selecting the soil and planning its management. The factors of economic crop production, such as controlling the water supply of the soil, crop rotations, manuring, green manuring, liming, fertilizing pasture, truck, fruit and field crops will be considered.

Newell Hall houses part of the laboratories and offices of the Agricultural Experiment Station.