

RATCLIFFE HICKS SCHOOL OF AGRICULTURE

Kristen Govoni Ph.D., Associate Dean, College of Agriculture, Health and Natural Resources and Director, Ratcliffe Hicks School of Agriculture

The Ratcliffe Hicks School of Agriculture confers Associate of Applied Science Degrees in Animal Science, Plant Science, and Urban Forestry and Arboriculture. This two-year program of technical and applied education is only available at the Storrs campus. The School was established in 1941 by the University of Connecticut through a bequest from Mr. Ratcliffe Hicks of Tolland, Connecticut.

Students include recent high school graduates as well as adults who are interested in continuing education or a career change. Course work offers a balance between technical and theoretical aspects of each subject with emphasis on hands-on learning.

Ratcliffe Hicks School of Agriculture graduates have the skills and knowledge to enter challenging and exciting careers. They are highly qualified for competitive positions and often manage or own businesses and production operations. Ratcliffe Hicks School of Agriculture graduates can also continue their education and pursue baccalaureate or higher degrees.

Scholarships

The Ratcliffe Hicks School of Agriculture offers scholarships for qualified individuals entering the two-year program. Selected applicants receive up to \$1,500 toward educational expenses in their first semester. Based on academic performance, scholarships may be renewed for three additional semesters.

Incoming students are automatically reviewed for scholarships prior to entering the program. Selection is based on academic and career-related accomplishments, and potential for continued success.

Many scholarships in Agriculture, Health and Natural Resources are available to Ratcliffe Hicks students, for more information please see: grow.uconn.edu (<http://grow.uconn.edu>).

Field Trips and Transportation Costs

Many courses require off-campus field trips. Students should budget money for participation.

University Fees and Expenses

For fees and expenses, see statement under Undergraduate Fees and Expenses.

Faculty Advisors

Faculty advisors are assigned to students upon entry into the Ratcliffe Hicks School of Agriculture according to a student's major and area of special interest. Advisors assist students in the selection of appropriate courses and help them develop an individualized program that will meet educational and career goals. The Ratcliffe Hicks Director's Office and Academic Advisory Center provide additional support to faculty advisors and students.

Registration

Ratcliffe Hicks students are restricted primarily to Ratcliffe Hicks courses, numbered 100-999. Ratcliffe Hicks students may register for 1000-level courses listed in the Associate Degree requirements, and all courses within TOI-5.

Ratcliffe Hicks students must have approval of the advisor and Director to register for courses not listed in the "Associate Degree Requirements" and/or not listed in TOI-5. Inappropriate registration may result in administrative changes to a student's schedule or credit restrictions toward graduation requirements.

Majors

The Ratcliffe Hicks School of Agriculture students major in Plant Science, Animal Science, or Urban Forestry and Arboriculture.

Plant Science majors may concentrate in ornamental horticulture, turfgrass management, or sustainable crop production. Graduates pursue careers in golf course management, sports turf management, floriculture, landscape and grounds maintenance, greenhouse and garden center operations, nursery management, interiorscaping, park and land management, public horticulture or various positions within the entire food crop production chain from field to fork.

Animal science majors focus on equine studies or production agriculture, including both dairy and livestock. Graduates seek positions in the horse industry, production enterprises, animal health, breeding and genetics, nutrition, meat science and food handling, or related industries.

Urban Forestry and Arboriculture majors focus on the care and maintenance of individual trees and urban forest tracts near buildings, roads, and other developments. This major provides students with needed vocational skills to pursue a career in arboriculture and urban forest management, including the knowledge required to sit for the CT Arborist license exam.

- Animal Science (AAS) (<https://catalog.uconn.edu/undergraduate/ratcliffe-hicks-agriculture/animal-science-aas/>)
- Plant Science (AAS) (<https://catalog.uconn.edu/undergraduate/ratcliffe-hicks-agriculture/plant-science-aas/>)
- Urban Forestry and Arboriculture (AAS) (<https://catalog.uconn.edu/undergraduate/ratcliffe-hicks-agriculture/urban-forestry-arboriculture-aas/>)

Admission Requirements

Admission is open to qualified graduates of approved secondary schools. For required courses and units, please refer to the Admission section of this Catalog. Foreign language study is not required for admission into the two-year program; college preparatory level courses are recommended, but not required.

Applicants follow the same process as other undergraduate programs at UConn. Applicants submit the Common Application or the UConn Admission Application, high school transcript, SAT or ACT scores, and personal essay, which is included in the application. Applicants are encouraged to emphasize their interest, experience, and career goals when completing the essay and activities sections of the application. Applicants with prior post-secondary course work must submit official college transcripts. Applicants who are not graduates of a secondary

school must present a copy of a State Equivalency Diploma and a personal statement.

Students from some New England states may be eligible to enroll in the Ratcliffe Hicks School of Agriculture at a reduced tuition rate through the New England Regional Student Program. Eligibility for Associate degree programs in Animal Science, Plant Science, and in Urban Forestry and Arboriculture are described in the Admissions section of this Catalog.

Non-Degree Study

Individuals interested in obtaining specific skills and knowledge relating to the many diverse areas of plant, forestry, and animal science may also register for Ratcliffe Hicks courses as non-degree students. Non-degree students do not have to apply for formal admission to the University.

Transfer to Four-Year Program

Approximately 60 percent of Ratcliffe Hicks graduates continue their education to earn baccalaureate or higher degrees. Students must complete the A.A.S. program to transfer into the College of Agriculture, Health and Natural Resources or other baccalaureate programs at the University. Students should contact the Ratcliffe Hicks Director's Office to obtain an application and verify procedures. The Ratcliffe Hicks School will review applications for transfer and submit recommendations to the Transfer Admissions Office and the Registrar's Office for final decisions. Admission decisions will be based primarily on courses completed in the School and earned grade point average (minimum 2.7). Students transferring to a baccalaureate program at the University of Connecticut will receive transfer credit for courses based on the following criteria:

1. Ratcliffe Hicks courses (three-digit courses in SAAG, SAAS, SANR, SAPL, SAPB, SARE) with passing grades will be applied to the baccalaureate program except as noted below. Course equivalency is determined by departmental review.
2. If a passing grade is earned, the following courses allow for credit transfer, but grades do not: SAPB 301 Health and Disease Management of Animals, SAPL 991 Internship.
3. Baccalaureate courses (four-digit course numbers) with passing grades will be applied to baccalaureate program.
4. Courses graded satisfactory/unsatisfactory or pass/fail with passing grades will be applied to the baccalaureate program.

Associate Degree Requirements

Upon recommendation of the faculty, the degree of Associate of Applied Science is awarded by vote of the Board of Trustees to students who have met the following requirements:

1. earned a total of 60 degree credits;
2. earned at least a 2.0 grade point average for the total number of calculable credits for which they have registered;
3. passed all courses required by the faculty of the Ratcliffe Hicks School of Agriculture; and
4. earned at least 40 credits at the University of Connecticut in Ratcliffe Hicks courses numbered 100-999. Transfer students may be eligible for an exception with approval of the Director.

All students must pass the following courses to earn the Associate of Applied Science Degree. *No single course can be used to satisfy more than one requirement.*

Ratcliffe Hicks Common Curriculum Requirements Pass/Fail

Ratcliffe Hicks School of Agriculture students who have earned at least 24 credits and are not on academic notice may place a course, for no more than four credits, on Pass/Fail. Credits earned from a Pass/Fail course may be used toward the total credit requirement for the Associate of Applied Science degree, but cannot be used to meet any other graduation requirement.

Supplementary Scholastic Standards

The Ratcliffe Hicks School of Agriculture follows the same academic regulations and procedures regarding scholastic standards and academic notice as all other schools and colleges of the University except:

- Ratcliffe Hicks students are on academic notice for the next semester in which they are enrolled if their academic performance is such that they have earned less than a 2.0 semester grade point average or cumulative grade point average. No warning semester is permitted.
- Students who are dismissed from the Ratcliffe Hicks School of Agriculture for the first time may, upon approval, matriculate no sooner than one semester following dismissal.

Agricultural and Resource Economics (SARE)

SARE 450. Principles of Applied and Resource Economics. (3 Credits)
An introduction to microeconomic analysis with applications to food, nutrition, health, natural resources, and the environment. Topics include consumer and firm behavior, supply, demand, markets, and economic policy. Taught with ARE 1150.

SARE 460. Fundamentals of Accounting and Management for the Agribusiness Firm. (3 Credits)
An analysis of basic business principles, fundamentals and concepts for business entrepreneurs.

SARE 495. Special Topics. (1-3 Credits)
(Also offered as SANR 495.) Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks section. May be repeated for credit

SARE 699. Independent Study. (1-6 Credits)
(Also offered as SANR 699.) An independent study project is mutually arranged between a student and an instructor. Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks section. May be repeated for credit

Agriculture (SAAG)

SAAG 250. First Year Student Seminar. (1 Credit)
Designed to assist incoming students in adjusting to college and improving their academic performance. First year students will learn about university resources and facilities, and strategies relating to study skills, problem solving, time management, and setting and achieving academic and personal goals. Field trips may be required.

SAAG 316. Introduction to Agricultural Mechanics and Safety. (2 Credits)

This is an introductory level class which will explore basic small internal combustion engines, tractor and chainsaw operations and safety. Safety, use of shop tools, processes, and procedures around agricultural machinery and equipment will be emphasized.

SAAG 350. Hispanic Culture and Communication in Agriculture. (3 Credits)

Covers everyday conversations in Latin American Spanish needed at the workplace in agriculture and natural resources. It aims at emphasizing dialogues, commands and directions to improve the relationship and understanding of workers and employers in several fields of agriculture. Course prepares students in landscape, horticulture, animal science and agriculture economics with basic communication skills in Spanish and familiarizes students with Latin American cultural traditions. Taught with AHNR 3350. Not intended for students with advanced Spanish language skills.

SAAG 495. Special Topics. (1-6 Credits)

May be repeated for credit

SAAG 693. Foreign Study. (1-6 Credits)

Courses taken in agriculture, natural resources, and related areas as part of approved Education Abroad programs. Credits and topics must be approved by department head and director of Ratcliffe Hicks School of Agriculture.

May be repeated for credit

SAAG 699. Independent Study. (1-6 Credits)

An independent study project is mutually arranged between a student and an instructor. Course may be repeated for credit. Total credits allowed toward graduation requirements are restricted as outlined in the Ratcliffe Hicks section of the Undergraduate Catalog.

May be repeated for credit

Animal Science (SAAS)

SAAS 101. Introduction to Animal Science. (3 Credits)

The biological, physical and social factors that influence animal production and utilization. Taught with ANSC 1001.

Enrollment Requirements: Not open to students in an undergraduate program.

SAAS 111. Anatomy and Physiology of Domestic Animals. (3 Credits)

A study of the anatomy and physiology of the animal body including characteristics that impact animal production systems. The physiology of reproduction and digestion will receive emphasis. Management practices and techniques used to maximize production efficiency will be included.

SAAS 112. Anatomy and Physiology of Domestic Animals. (3 Credits)

A study of the anatomy and physiology of the animal body including characteristics that impact animal production systems. The physiology of reproduction and digestion will receive emphasis. Management practices and techniques used to maximize production efficiency will be included.

Enrollment Requirements: SAAS 111.

SAAS 113. Principles of Animal Nutrition and Feeding. (3 Credits)

Focuses on digestive anatomy of various species and the classes of nutrients including their digestion, metabolism and sources. Nutrient requirements and feeding standards for various classes of livestock for reproduction, lactation, growth, work and maintenance are included as well as companion animals, exotics and aquatics. Classes of feedstuffs, their characteristics and proper utilization will be discussed. Attention will also be given to characteristics of common feedstuffs and to formulating rations and nutritional programs for animal enterprise. Taught with ANSC 1111.

SAAS 121. Animal Breeding and Genetics. (3 Credits)

The principles of genetics, chemistry of nucleic acids, replication, transcription, translation and regulation of genes, population and quantitative genetics, and modern molecular genetics approaches as tools for breeding, and improving livestock production.

SAAS 202. Behavior and Training of Domestic Animals. (3 Credits)

Application of behavior of cattle, horses, sheep, goats, swine, companion animals and poultry to their management, training and welfare. Basic principles of genetics and physiology of behavior, perception, training, learning, motivation, and stress with consideration of integrated behavioral management and animal welfare. Students must have access to an animal that they can train throughout the semester. Taught concurrently with ANSC 1602.

Enrollment Requirements: Recommended preparation: SAAS 101.

SAAS 243. Animal Products. (3 Credits)

An introduction to meat, dairy and poultry products. Issues concerning regulatory standards, nutritive value, safety and quality assessment will be emphasized. Laboratories will emphasize the production and processing of these animal food products. Taught with ANSC 3343.

SAAS 251. Horse Science. (3 Credits)

Includes horse types and breeds and their nutrition, breeding, evaluation, behavior, care and management with attention given to detailed studies of the problems and practices of horse production and use. Taught with ANSC 2251.

SAAS 252. Management of the Horse Breeding Farm. (3 Credits)

Designed to develop technical and managerial skills necessary for operating horse farms. Programs for herd health, hoof care, nutrition, breeding, foaling and record keeping will be included.

Enrollment Requirements: SAAS 251.

SAAS 255. Foundations of Training. (2 Credits)

Fundamental ground work and training techniques used when working with young horses. Prior working experience with horses is highly recommended.

SAAS 257. Methods of Equitation Instruction. (2 Credits)

The techniques and procedures of teaching equitation including the theories of riding and teaching methods. Practice teaching will be required under the supervision of the instructor. Taught with ANSC 4457.

SAAS 261. Dairy Herd Management. (3 Credits)

Management of dairy cattle including milking procedures, sanitation, selection, nutrition, reproduction, physiology and anatomy of milk secretion and record keeping. Field trip required. Taught with ANSC 3261.

SAAS 262. Applied Dairy Herd Management. (3 Credits)

The organization and management of dairy farms with emphasis upon business and economic decision making. Management programs in the areas of nutrition, disease control, waste management, selection, reproduction and milking will be evaluated. Field trips are required.

SAAS 271. Introduction to Poultry Industry. (3 Credits)

A practical application of scientific principles in the poultry industry. It will include classification, selection methods, breeding, incubation and chick development, brooding, nutrient requirements, processing and management practices.

SAAS 272. Sustainable Animal Management. (3 Credits)

An introduction to sustainable agriculture, as related to alternative farm animal production. Basic economics will be discussed in preparation for the creation of a farm business plan. Laboratory/discussion periods will include student presentations and hands-on activities. Field trips required.

SAAS 273. Livestock Production. (4 Credits)

Biological and economic aspects of beef, sheep, and swine production. Field trips required. Taught with ANSC 3273.

SAAS 274. Livestock and Carcass Evaluation. (2 Credits)

Classification, form to function relationships, grades and value differences of livestock are included. Objective and subjective methods of appraisal are used to evaluate beef cattle, sheep and swine. Taught with ANSC 3674.

SAAS 275. Advanced Animal and Product Evaluation. (1 Credit)

Intensive training in the evaluation of selected species of farm animals or their products. Type standards and the relation of anatomical features to physiological function are emphasized. Evaluation skills including justification of decisions will be developed. Students enrolled in this course will have the option to participate on intercollegiate animal and product evaluation teams. Field trips are required, some of which may occur prior to the start of the semester. Taught with ANSC 3675. May be repeated for a total of 2 credits

SAAS 276. Introduction to Companion Animals. (3 Credits)

Basic concepts of nutrition, physiology, health, genetics, and management of companion animals emphasizing cats and dogs, but less common ones will also be discussed. Management will encompass keeping companion animals, and behavioral, and mental health management concerns. Taught with ANSC 2276.

Enrollment Requirements: SAAS 101 and SAAS 113.

SAAS 290. Animal Science Field Excursions. (1 Credit)

A multiple day field trip format. Students in this course will travel with the instructor to visit and tour agri-businesses that represent commercial aspects of different animal science activities. Students will interview agri-business personnel and gain an understanding of how agricultural principles are applied in the field. Each student must submit a formal written report for evaluation and meet all other course requirements as specified by the instructor. Field trip is required. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

May be repeated for a total of 1 credits

SAAS 291. Professional Internship. (1-6 Credits)

Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks section.

Enrollment Requirements: Open to sophomores or higher; open only with consent of instructor.

SAAS 294. Career Paths in the Animal Sciences. (1 Credit)

A discussion of current employment opportunities in animal agriculture. In addition, students will prepare resumes and give oral presentations.

SAAS 295. Special Topics. (1-6 Credits)

Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks section. Contact Department Main Office for list of current topics and instructors.

May be repeated for credit

SAAS 298. Variable Topics. (1-6 Credits)

Contact Department Main Office for list of current topics and instructors.

Enrollment Requirements: Instructor consent.

May be repeated for credit

SAAS 299. Independent Study. (1-6 Credits)

An independent study project is mutually arranged between a student and an instructor. Students are advised to read the Ratcliffe Hicks regulation limiting the number of credits which may be applied to the minimum graduation requirements. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory.)

May be repeated for credit

SAAS 358. Management Skills and Practices - Horses. (1 Credit)

Practical experience in common management practices is offered by working in the University facilities under supervision. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

May be repeated for a total of 2 credits

SAAS 363. Management Skills and Practices - Dairy Cattle I. (1 Credit)

Practical experience in common management practices is offered by working in the University facilities under supervision. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

Enrollment Requirements: May not be taken out of sequence after passing SAAS 364.

SAAS 364. Management Skills and Practices - Dairy Cattle II. (1 Credit)

Continued practical experience in common management practices is offered by working in the University facilities under supervision. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

Enrollment Requirements: SAAS 363.

SAAS 373. Management Skills and Practices - Livestock. (1 Credit)

Practical experience in common management practices is offered by working with livestock species in the University facilities under supervisor. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

May be repeated for a total of 2 credits

SAAS 375. Management Skills and Practices - Poultry. (1 Credit)

Practical experience in common management practices is offered by working in the University facilities under supervision. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

Enrollment Requirements: Open only to students in the Ratcliffe Hicks School of Agriculture. Instructor consent required.

May be repeated for credit

SAAS 420. Training Assistant. (1 Credit)

Livestock animal handling, training, fitting, and showing techniques for Introduction to Animal Science students at weekly practices.

Enrollment Requirements: Instructor consent.

Natural Resources and the Environment (SANR)

SANR 210. Natural Resources Measurements. (3 Credits)

Principles and instrumentation used in the measurement of environmental conditions and processes. Field trips required.

SANR 215. Dendrology. (3 Credits)

Identification, taxonomic classification, silvics, and distribution of trees and woody shrubs of the United States with emphasis upon Northeastern species. Focus is on field-based identification skills in natural forest, woodland and shrubland settings. Lab sessions take place primarily outdoors. Field trips are planned. Taught with NRE 2415.

Enrollment Requirements: Recommended preparation: SAPL 120 and SAPL 300.

SANR 216. Trees and Forests Lab: Dendrology. (1 Credit)

Field-based introduction to taxonomy, silvics, and distribution of trees and shrubs of the United States with emphasis upon Northeastern species. Field trips will be required. Taught concurrently with NRE 2416.

SANR 255. Forest Ecology. (3 Credits)

Forest structure and functional processes and their relation to physical environment (light, temperature, water, soil); the influence of time (succession, disturbance, stand dynamics) and space (landscape ecology, ecosystem management). Laboratory will be in the field or computer lab. Taught with NRE 2455.

Enrollment Requirements: Recommended preparation: SANR 215.

SANR 310. Introduction to Wildlife Management. (3 Credits)

Basic wildlife techniques including habitat evaluation and identification signs. Emphasis will be placed on keeping a wildlife field journal. Field exercises and laboratory provide an opportunity to use and evaluate techniques for wildlife management.

SANR 325. Fundamentals of Arboriculture. (3 Credits)

Theory, science, and practice of evaluating, growing, managing and safe removal of trees within or in close proximity to built environments. Laboratories are field-based and will take place in outdoor conditions. Taught with NRE 3425.

Enrollment Requirements: SANR 215, which may be taken concurrently.

SANR 425. Urban and Community Forestry. (3 Credits)

The theory, science and practice of evaluating and managing urban trees and forest resources, recognizing urban forest resources as part of socio-ecological-economic systems.

Enrollment Requirements: Recommended preparation: SANR 215 and 325.

SANR 495. Special Topics. (1-3 Credits)

(Also offered as SARE 495.) Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks section. May be repeated for credit

SANR 699. Independent Study. (1-6 Credits)

(Also offered as SARE 699.) An independent study project is mutually arranged between a student and an instructor. Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks section.

May be repeated for credit

SANR 991. Field Study Internship. (1-6 Credits)

Designed to acquaint students through actual work experience with their career field of interest beyond those available on campus. The student, intern supervisor, and faculty member offering the course will develop and sign a learning contract prior the start of the internship. Both the intern supervisor and student will provide evaluations at the end of the internship to the faculty member. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

Enrollment Requirements: Instructor consent.

May be repeated for a total of 6 credits

Pathobiology (SAPB)

SAPB 301. Health and Disease Management of Animals. (3 Credits)

Designed for students who plan to own and work with domestic animals. Its purpose is to develop student competence in disease management and to foster an intelligent working relationship with their veterinarian. The course will cover a systematic relationship of infectious and noninfectious diseases of domestic animals from the standpoint of economic and public health.

Enrollment Requirements: SAAS 111 and 112 and a college course in biology.

SAPB 495. Special Topics. (1-2 Credits)

Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks Section.

May be repeated for credit

SAPB 699. Independent Study. (1-6 Credits)

An independent study project is mutually arranged between a student and an instructor. Students are advised to read the Ratcliffe Hicks School regulation limiting the number of credits which may be applied toward graduation.

May be repeated for credit

Plant Science (SAPL)

SAPL 101. Environmental Sustainability of Food Production in Developed Countries. (3 Credits)

Foundations of modern systems that produce the majority of food calories consumed in North America and other developed countries. Benefits and environmental risks associated with modern food production systems. Alternative food production systems and sustainability. Local food production and food security. Food production and climate change.

SAPL 110. Turfgrass Management. (3 Credits)

An overview of turfgrass adaptation, selection, and management. Topics include turfgrass growth, physiology, soil interactions, establishment, and maintenance. Cultural system practices for lawns, golf courses, athletic fields, and other turf areas. Turfgrass pest management practices for weeds, insects and diseases.

Enrollment Requirements: May not be taken out of sequence after passing SAPL 315.

SAPL 115. Turfgrass Management Laboratory. (1 Credit)

Grass establishment, grass identification, athletic field turfgrass playability evaluations, soil testing, turfgrass pest identification, turfgrass pest monitoring techniques and fertilizer spreader and sprayer calibration.

Enrollment Requirements: SAPL 110, which may be taken concurrently.

SAPL 120. Introduction to Plant Science. (4 Credits)

A general course designed to give students a broad view of the field of horticulture as well as a working knowledge of the fundamentals of plant growth.

SAPL 130. Introduction to the Horticulture of Cannabis. (3 Credits)

Fundamentals of the production cycle of Cannabis including horticultural management, identification of crop issues, elite feminized seed production, seed propagation, vegetative propagation, pruning, training, optimization of cannabinoid content and post-harvest handling. Overviews of Cannabis business operations world-wide and in Connecticut, exploring lab testing procedures, cannabidiol extraction technologies, the Connecticut medical marijuana program and government regulation of the industry. Taught with PLSC 2130.

Enrollment Requirements: Recommended preparation: SAPL 120.

SAPL 160. The Great American Lawn: History, Culture and Sustainability. (3 Credits)

The largest irrigated crop in the U.S. is located right outside your window. Examines the health, social, cultural, and environmental impacts of one of America's greatest obsessions. Taught with PLSC 1060.

SAPL 210. Golf Course Management. (3 Credits)

Discussion of the specialized field of golf course management. Topics: cultural techniques including soil aeration, topdressing, mowing, and thatch removal; grass or species selection, fertilization, irrigation, personnel, golf course pest management and equipment and inventory management. Field trips required.

SAPL 211. Landscape Architecture: Graphics I - Design Drawing. (4 Credits)

Knowledge and theory of graphic representation, exploration of landscape, design, and materials. Introduction to basic design principles. Application of graphic and design theory through free-hand drawing in a studio environment.

Enrollment Requirements: Not open to students who have completed LAND 2110.

SAPL 230. Principles of Turfgrass Irrigation Systems. (3 Credits)

Turfgrass irrigation systems, principles of hydraulics, irrigation components, design, installation and repair. Students will design irrigation systems for various turf areas. Field trips and fieldwork will be required. Taught with PLSC 3300.

SAPL 240. Professional Development for Turfgrass Industries. (2 Credits)

Topics include human resource information, communication skills, turfgrass pesticide laws and compliance, labor laws and compliance, bid specifications, resume writing, interviewing, golf course management structures, business ethics, and benefits of professional association membership. Guest lecturers include industry professionals and representatives. Taught with SPSS 3400.

SAPL 300. Introduction to Soil Science. (3 Credits)

Physical and chemical properties of soils; nature and use of fertilizer and lime materials; management of soils for crop production including soil testing, tillage and fertilization practices, and conservation practices.

Enrollment Requirements: May not be taken out of sequence after passing SAPL 315.

SAPL 315. Advanced Turfgrass Management. (3 Credits)

Effects of environmental stresses and turfgrass management practices on growth, development and physiology of turfgrasses. Implementation of proper management practices to promote optimal turfgrass health under stress conditions. Taught with PLSC 3150.

Enrollment Requirements: SAPL 110 and 300.

SAPL 410. Woody Plants: Common Trees, Shrubs and Vines. (3 Credits)

Taxonomy, identification, ornamental characteristics, cultural requirements and landscape use of deciduous and evergreen woody plants most often utilized in landscapes of the northeastern United States and similar environs.

Enrollment Requirements: SAPL 120.

SAPL 430. Herbaceous Ornamental Plants. (3 Credits)

Identification, nomenclature, cultural requirements and landscape uses of herbaceous perennials, ornamental grasses, ferns, annuals and bulbs. Study of live plants is required.

SAPL 440. Small Fruit Production. (3 Credits)

The commercial production of small fruits and grapes in the Northeast and Mid-Atlantic regions including varieties, fruit-growing systems and pruning, site requirements, harvesting methods, post-harvest requirements, marketing, pest complexes and IPM strategies of the major berry crops.

SAPL 500. Principles and Concepts of Agroecology. (3 Credits)

Application of ecological processes to modern agricultural production practices. Crops and their environment. Soil quality and maintenance of soil productivity. Sustainability of agroecosystems.

SAPL 520. Floral Art. (2 Credits)

The study of flower arrangement as an art form with emphasis on historical background, artistic principles, color harmony, and care of perishable media. Individual expression is encouraged in the creation of floral composition.

SAPL 540. Garden Center Management. (3 Credits)

Techniques and concepts essential in managing and operating a garden center. Topics include goal setting, retailing, finance, business planning and pricing.

SAPL 550. Urban Plant Systems: Construction and Maintenance. (3 Credits)

Technical information on the effective construction and maintenance of planted systems. Structural and functional components of plant systems. Provision of ecosystem services. Overviews of a wide spectrum of planted systems including streetscaping, green roofs and green walls, rain gardens and bioretention, and phytoremediation systems. Techniques of soil modification. Plant selection. Establishment and maintenance of woody and herbaceous plants: planting, preservation, pruning, mulching, irrigation, and fertilization. Taught with PLSC 3550.

Enrollment Requirements: Recommended preparation: SAPL 120,410,430. Not open for credit to students who have passed SAPL 740.

SAPL 560. Indoor Plants and Interiorscaping. (3 Credits)

Taxonomy, identification, ornamental characteristics, cultural requirements and use of tropical plants. Principles of interiorscaping in the home, office, public buildings, and related locations.

SAPL 620. Vegetable Production. (4 Credits)

Fundamentals of soil management and crop plant husbandry as applied to commercial vegetable production and home gardening. Horticultural principles of crop growth. Focus is on sustainable practices. Field laboratory will consist of field trips (some outside designated laboratory time) during the early part of the semester to organic and conventional farms to observe production and marketing practices. Field trips required.

SAPL 640. Plant Propagation. (3 Credits)

Theory and practice in sexual and asexual propagation of horticultural plants, emphasizing the anatomical, physiological, and ecological principles involved. Laboratories provide practical experience with seeds, division, cuttings, budding, grafting, layering and tissue culture.

SAPL 660. Nursery Production. (3 Credits)

Principles of field and container production of nursery stock. Emphasis on production practices for woody nursery stock from propagation to sales.

SAPL 670. Greenhouse Technology and Operations. (3 Credits)

Introduction to greenhouse crop management with emphasis on structures, environmental control systems, and management techniques used to control crop response.

Enrollment Requirements: SAPL 120.

SAPL 675. Greenhouse Management Field Study. (1 Credit)

Students will be introduced to greenhouse crop production techniques and methodologies. Course follows a travel-course format, in which students participate in regularly scheduled field trips to commercial greenhouse operations in Connecticut and neighboring states. Students will make observations on the mechanical systems, management considerations, and crop production practices employed by commercial businesses.

Enrollment Requirements: SAPL 670, which may be taken concurrently.

SAPL 680. Advanced Cannabis Horticulture. (3 Credits)

Advanced concepts of Cannabis production, management, processing and product development that build upon SAPL 130. Students will choose highly focused study of either indoor controlled environment production or outdoor cultivation of Cannabis for part of the course. Taught with PLSC 3680.

Enrollment Requirements: SAPL 130 or PLSC 2130 or permission of instructor.

SAPL 770. Hydroponic Crop Production. (3 Credits)

Introduction of hydroponics and soilless cultivation with emphasis on its underlying technologies, commercial practices, and sciences. This course will offer a series of lectures and lab activities to facilitate student learning on the hydroponic crop production, including components of hydroponics, various types of hydroponics, and cultural practices to optimize crop production using hydroponics under a controlled environment.

Enrollment Requirements: Recommended preparation: PLSC 3620, PLSC 3640, PLSC 3660 or PLSC 3670 or SAPL 620, SAPL 640, SAPL 660, or SAPL 670.

SAPL 810. Plant Pest Control. (3 Credits)

A practical survey of practices used for insect, disease and weed pests of turf, flowers, shrubs, trees and food crops. Consideration will be given to quarantine, mechanical, biological and chemical means of control. Field trips may be required.

SAPL 840. Integrated Pest Management. (3 Credits)

Principles of integrated pest management covering insect, disease, and weed problems with emphasis on turfgrass, ornamentals, and greenhouse production. Environmental impacts and pest control strategies will be covered.

Enrollment Requirements: SAPL 800 or 810.

SAPL 991. Internship. (1-6 Credits)

Students will work with professionals in an area of their interest. Written reports, daily logs, and/or evaluations by professional supervisors may be required. Open to qualified students with consent of advisor and Department Head.

May be repeated for a total of 6 credits

SAPL 995. Special Topics. (1-6 Credits)

Total credits allowed toward graduation requirements are restricted as outlined in Ratcliffe Hicks Section.

May be repeated for credit

SAPL 999. Independent Study. (1-6 Credits)

An independent study project is mutually arranged between a student and an instructor. Total credits allowed toward graduation requirements are restricted as outlined in the Ratcliffe Hicks section of the Undergraduate Catalog.

May be repeated for credit