College of Agriculture, Health and Natural Resources

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In 1862, Congress passed the Morrill Land Grant Act providing grants of federal land to each state. Funds from the sale of these lands were used in establishing a college teaching agriculture and related subjects in each state. Subsequent federal acts have enlarged the responsibilities of these colleges. Today they continue to serve agriculture and society in many ways through a variety of educational programs. The University of Connecticut is the land-grant university in Connecticut. The College of Agriculture, Health and Natural Resources offers instruction at both undergraduate and graduate levels. Research and experimental work is carried on through the Storrs Agricultural Experiment Station. Educational and service programs are conducted throughout the State by the Cooperative Extension System. The College of Agriculture, Health and Natural Resources is supported by both federal and state appropriations and contributions from the private sector.

Agriculture has evolved to engage scientists concerned with food, people, and health in a manner that is economically viable and environmentally sustainable. The College of Agriculture, Health and Natural Resources maintains strong programs in fields such as agricultural biotechnology, allied health sciences, animal science, diagnostic and environmental sciences, health promotion, landscape architecture, medical laboratory sciences, nutritional biochemistry, pathobiology, pre-veterinary study, resource economics, and wildlife management.

The College has extensive facilities and operations to supplement and enhance instruction, learning experiences, and research. Laboratories, plants, animals, greenhouses and other related resources – both on and off campus – allow students to apply knowledge and skills in real-world, professional environments. The Agricultural Biotechnology complex, Center for Land Use Education and Research, Center for Environmental Health, Nayden Rehabilitation Clinic, Korey Stringer Institute and Athletic Training Learning Laboratory, Connecticut Institute of Water Resources, Connecticut State Climate Center, Food Marketing Policy Center, and the Wildlife Conservation Research Center are all integral components of the College of Agriculture, Health and Natural Resources.

The following departments offer undergraduate instruction in the College: Agricultural and Resource Economics, Allied Health Sciences, Animal Science, Kinesiology, Natural Resources and the Environment, Nutritional Sciences, Pathobiology and Veterinary Science, and Plant Science. The Directory of Courses section of this Catalog describes the course offerings of these departments. Other courses are offered under the departmental listing Agriculture and Natural Resources.

The four-year curriculum leads to the Bachelor of Science degree for all majors except Environmental Studies, which leads to a Bachelor of Arts degree.

Admission Requirements

Students may enter the College of Agriculture, Health and Natural Resources directly upon admission to UConn as a freshman or transfer student. New students who select Allied Health Sciences will be admitted as Allied Health Sciences majors and advised by the Department of Allied Health Sciences. Professional majors in the Department of Allied Health Sciences (Dietetics, Diagnostic Genetic Sciences, and Medical Laboratory Sciences) are competitive junior/senior year programs with additional admission procedures and requirement as outlined below. Students planning to apply to the Kinesiology programs in Athletic Training, or Exercise Science should refer to specific information in the Kinesiology Programs description of this section.

See Admission to the University and New England Regional Student Program.

Scholarships. Over $450,000 in scholarships and awards are available to students in the College of Agriculture, Health and Natural Resources.

Advisors Assigned by Major: Departmental Advisors are assigned to students upon entry into the College of Agriculture, Health and Natural Resources 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 of study that will meet educational and career goals. The office of the Associate Dean for Academic Programs and the Academic Advisory Center of the College of Agriculture, Health and Natural Resources also support students and advisors.

Bachelor’s Degree Requirements

Upon recommendation of the faculty the degree of Bachelor of Science or Bachelor of Arts is awarded by vote of the Board of Trustees to students who have met the following requirements: (1) earned a total of 120 degree credits; (2) earned at least a 2.0 cumulative grade point average for the number of calculable credits for which they have been registered; (3) earned at least a 2.0 cumulative grade point average for all courses included in the 36 credit numbered 2000 or above requirement for the major; (4) met all the requirements of the University of Connecticut, the College of Agriculture, Health and Natural Resources, and their individual major as outlined below.

General Education Requirements

All students in the College of Agriculture, Health and Natural Resources must meet the University-wide General Education Requirements (GER) as described in the “Academic Regulations” section of this Catalog.

Science and Mathematics Requirements

Students in the College of Agriculture, Health and Natural Resources must pass at least two courses in Content Area 3, including at least one course from the list of four-credit laboratory courses; and at least two Quantitative (Q) courses, including at least one course in Mathematics or Statistics. Ordinarily, these requirements will be met by completing University general education courses and/or courses required by the major. However, if a student receives a waiver from general education courses (e.g. based on completion of a previous baccalaureate degree) he or she must still complete the science and quantitative courses, as listed above.

36 Credit Requirement for All Majors

Students in all majors of the College of Agriculture, Health and Natural Resources must successfully complete at least 36 credits of courses in or relating to their major. Courses for this 36 credit group may be taken from specific major requirements (as listed below for some majors), or may be selected according to a student’s individual educational and career goals. This group of courses must:

1. Be numbered 2000 or above
2. Be approved by the student’s advisor and department head
3. Include at least 30 credits taken at the University of Connecticut
4. Be taken in two or more departments
5. Include at least 15 credits from departments in the College of Agriculture, Health and Natural Resources, which must be taken at the University of Connecticut
6. Have a combined grade point average of at least 2.0
7. Not include more than 6 credits (combined) of independent study, internship, or field studies (if included, these credits must be taken at the University of Connecticut)
8. Not be taken on Pass/Fail
9. Not include more than 6 credits of S/U coursework

Residence Requirement. It is expected that advanced course work in the major will be completed at the University of Connecticut. However, students may be eligible to use up-to six credits from other institutions in the 36-credit group if approved by their advisor and department head. These credits must be identified as courses comparable to specific University of Connecticut courses and cannot include internships, special topics, or non-specific discipline credits. Transfer students must complete at least 30 credits of 2000-level or higher course work at the University of Connecticut, including at least 15 credits in College of Agriculture, Health and Natural Resources courses.

Plan of Study

Students should work closely with their advisors to review requirements, recommended courses, and career goals. Each student should prepare a tentative plan of study, outlining all courses, with an academic advisor as early as
Agricultural and Natural Resources

The Agriculture and Natural Resources major is an interdisciplinary major designed for students who want broad training in agricultural, environmental, and/or health sciences, with content that does not readily align with any one department or major. Students work with advisors to develop and complete a personalized and interdepartmental baccalaureate program based on their educational and career interests and goals. Courses selected for this major will include both introductory and advanced material from multiple departments in the College of Agriculture, Health and Natural Resources, as well as prerequisite and related knowledge and experiences in other disciplines.

Requirements

**Biology:** One course from: BIOL 1107, 1108, 1110

**Chemistry:** One course from: CHEM 1122, 1124Q, 1127Q, 1137Q

**Additional Science or Mathematics:** One additional course (minimum 3 credits) from BIOL, CHEM, GSCI, MARN, or PHYS, or one extra MATH or STAT course beyond those required for general education requirements

**Introductory Agriculture and Natural Resources:** Two 1000 level courses (minimum 3 credits each) representing two departments in CAHNR.

**36 Credit Group:** Agriculture and Natural Resources majors must meet all the requirements listed under the 36 Credit requirements for all CAHNR majors, which must include at least 24 credits (combined total) from departments in CAHNR. These credits must include at least 3 credits of course work from each of four (4) distinct departments in CAHNR.

**Writing Competency:** Students must pass one 2000-level or above W course in any department of the College of Agriculture, Health and Natural Resources.

**Computer Technology Competency:** Satisfied by University entrance expectations.

**Information Literacy Competency:** Satisfied by meeting the Writing Competency Requirement.

**Career Statement:** Agriculture and Natural Resources majors must submit a statement describing how courses relate to their desired career. This statement and courses for the major must be approved by advisor and College of Agriculture, Health and Natural Resources Associate Dean as early as possible in order to confirm the courses approved for the final Plan of Study.

A minor in Agricultural Biotechnology is described in the “Minors” section.

**Allied Health Sciences**

The Allied Health Sciences major leads to a Bachelor of Science degree. Students may elect to pursue the major with or without a concentration. The major offers a general (Standard) plan and four concentrations in Health Sciences, Healthcare Administration, Public Health and Health Promotion, and Occupational and Environmental Health and Safety. Please refer to information under the “Required courses by concentration” section for detailed information related to the major and concentrations.

**Admission - General**

Freshmen are admitted into the Department of Allied Health Sciences as Allied Health Sciences (AHS) majors. Students are advised in the Department of Allied Health Sciences. During the spring of their sophomore year or after completion of a minimum of 45 credits, students may remain an Allied Health Sciences major, may further define their major by petition into a concentration within the Allied Health Sciences major, or apply to a Professional Program (admission to a concentration within the AHS major or to a professional program is not automatic; refer to respective program admission information).

Students who apply to the Allied Health Sciences major with admission requirement coursework in transfer must provide the department with an official transcript as part of their application documentation.

**Admission to the Allied Health Sciences major is competitive.** The following requirements must be met for consideration of admission into the Allied Health Sciences major. Admission requirements must be complete at time of application to be considered for admission.

1. Be in good academic standing (not on probation or eligible for dismissal).
2. Math and Science GPA to include at least one each of the following with no grades less than a C (no substitutions).
   a. CHEM 1122 or 1124Q or 1127Q
   b. BIOL 1107 or 1108 (preferred BIOL 1107)
   c. MATH 1040Q or 1060Q or 1125Q, or higher; or STAT 1000Q or 1100Q
3. Students must have a minimum of a 3.4 cumulative GPA to be admitted into the Healthcare Administration concentration.

Please note: AH 1100 is recommended as a preparation for admission, but must be completed within one (1) year following admission into the Allied Health Sciences major. Students admitted to the AHS major typically have a cumulative GPA of 2.8 or higher and a science and math GPA of 2.7 or higher; however, competitive applicants will have greater than a 3.0 cumulative GPA. Advanced course work completed (i.e. science courses 2000-level and above) with grades less than a C may be cause for denial of admission. Students petitioning their junior or senior year may require additional semesters to complete requirements depending on how their coursework meets program requirements and course availability at time of registration. Please contact the department for questions as they relate to admissions.

Admission to the Health Sciences, Healthcare Administration, Public Health and Health Promotion or Occupational and Environmental Health and Safety concentrations within the Allied Health Sciences major requires a minimum of 45 earned credits, a cumulative GPA of 2.2 or higher (a 3.4 GPA is required for Healthcare Administration), academic good standing, and successful completion of one college level (1000-level or higher) course in each of the following: biology, chemistry, and mathematics as listed below.

To satisfy the general education requirements for computer technology and information literacy competencies, Allied Health Sciences majors must meet the University’s entrance expectations. They will not have to meet any advance requirements for computer technology and information literacy competency.

To satisfy the general education requirement for writing in the major, Allied Health Sciences students must pass the writing in the major course as indicated below.

The course requirements listed below are those of the Department of Allied Health Sciences and may also satisfy the University’s General Education requirements.

**Required courses by concentration:**

Students majoring in Allied Health Sciences (AHS) must complete required courses and the 36-credit major requirement as indicated below in addition to the university general education requirements (in some cases, major courses may also be used to satisfy university general education requirements):

### 36 Credits Major Requirement

Students majoring in Allied Health Sciences (AHS) (with or without a concentration) must complete 36 credits of course work (Groups A and B below) meeting the following requirements:

1. Numbered 2000-level or above
2. Include a minimum of 30 credits completed at the University of Connecticut
3. Approved by the student’s advisor and department head
4. Include coursework from two or more departments
5. Courses cannot be taken on pass/fail
6. Courses must be passed with a grade of “C” or better
7. Courses may be repeated once for a total of two times
8. Cannot include more than 6 credits (combined) of internship, independent study, or international study taken at the University of Connecticut
9. Cannot include more than 8 credits of courses used to satisfy requirements for a minor

The 36-credit major and graduation requirements to the Allied Health Science:

**Group A:** A minimum of 18-21 credits (varies by concentration) in Major course work within the CAHNR. Course requirements vary by concentration as indicated below.

**Group B:** A minimum of 15-18 credits in Related Cognate course work (varies by concentration) selected based on the student’s interest, ability, and that speaks to the student’s career goals and interests approved by the advisor and department head. Courses used cannot also be used to meet group A requirements, and must be at or above a maximum of 6 credits of combined International Study (AH 2093, 4093), Independent Study (AH 3099; DIET 3099; DGS 3999; MLSC 4099) and Internship credits (AH 3091) toward the Group B requirement with advisor and department head approval.

### Allied Health Sciences (no concentration)

The Allied Health Sciences major without a concentration is designed specifically for students who would like to pursue a broad-based baccalaureate degree in Allied Health or who would like to pursue graduate health programs that require a baccalaureate degree for admission. Working with an advisor, students design a flexible plan of study that they can tailor to meet their professional and personal goals. Students combine university general education and required coursework in Allied Health with coursework from departments across the university to tailor their baccalaureate degree to meet requirements for employment or admission to various graduate programs, including but not limited to Physical Therapy, Occupational Therapy, Post-Baccalaureate nursing programs, and Physician Assistant.

**Required courses (no concentration):** AH 1100; BIOL 1107; CHEM 1122 or 1124Q or 1127Q; CHEM 1125Q or 1128Q or PHYS 1010Q; COMM 1000 or 1100; MATH 1040Q or 1060Q or 1125Q or higher; NUSC 1165; PHIL 1000-level; PSYC 1101 or 1103; PSYC 2300, 2400; STAT 1000Q or 1100Q; and two (2) additional science courses approved by the Department of Allied Health Sciences. Science courses used to meet other program requirements cannot be used to meet this requirement. Courses used to satisfy this requirement must be two or more credits.

Writing in the major: AH 4240W

**Group A major Courses (no concentration):** (A-1) AH 4239 and 4240W; and (A-2) AH 2001; and (A-3) a minimum of 14 credits (or five additional courses) from the following list of CAHNR course options, three of which must be AH-coded: AH 3000, 3005, 3021, 3101, 3133, 3175, 3203, 3234, 3571, 4092, 4225, 4242, 4243, 4244, 4297W, 4503; DIET 3230; DGS 3222, 3226, 4224, 4234, 4246; MLSC 3130, NUSC 2200, 4236, 4250; PVS 3100, 4300. Other courses may be used to meet this requirement pending advisor and department head approval.

**Group B major Courses (no concentration):** Courses used to meet the Allied Health Sciences (no concentration) related cognate group B may be from departments across the university including courses in Allied Health not used to meet other program requirements. Courses should relate to career goals and interests. Students are advised to discuss course options with their faculty advisor as not all courses may satisfy this requirement.

### Health Sciences Concentration

The Health Sciences (HESCI) concentration in Allied Health Sciences prepares students interested in health specialties which involve laboratory procedures for diagnostic purposes or who are looking to pursue allied health fields requiring a strong health science and pathology background. This concentration is also designed for students seeking admission to post baccalaureate (graduate) programs such as, but not limited to, Physician Assistant, Pathology Assistant, Medical or Dental School, Epidemiology, Optometry, Pharmacy or the Department of Allied Health Sciences’ Post-Baccalaureate Diagnostic Genetics or Medical Laboratory Sciences Certificate Programs.

**Required courses:** AH 1100; BIOL 1107; CHEM 1124Q or 1127Q; CHEM 1125Q or 1128Q; CHEM 2241 and 2242 or 2443, 2444, and 2445; COMM 1000 or 1100; MATH 1060Q or 1125Q or higher; PHIL 1000-level; PHYS 1201Q and 1202Q or PHYS 1401Q and 1402Q or PHYS 1501Q and 1502Q; PSYC 1100; STAT 1000Q or 1100Q; and two (2) additional science courses approved by the Department of Allied Health Sciences. Science courses used to meet other program requirements cannot be used to meet this requirement. Courses used to satisfy this requirement must be two or more credits.

Writing in the major: AH 4240W

**Group A major courses:** (A-1) AH 4239 and 4240W; (A-2) AH 2001 plus two of the following: AH 3000, 4242, 4244; and (A-3) minimum of 8 credits (or three additional courses) from the following list of CAHNR course options. AH 3005, 3021, 3101, 3121, 3175, 4092, 4225, 4243, 4297W; DGS 3222, 3226, 4224, 4234, 4246; MLSC 3130; NUSC 4236, 4250; PVS 3100, 4300. Courses cannot also be used to meet Group A-2 requirements. Other courses may be used to meet this requirement pending advisor and department head approval.

**Group B major Courses:** Courses used to meet the Health Sciences concentration related cognate group B must be from the following subject areas: AH major/Health Sciences concentration Group A-3 courses (not used to meet that requirement) BIOL, CHEM, MCB, PHYS, PNB. Other science-based courses may be used to meet this requirement pending advisor and department head approval.

### Healthcare Administration Concentration

The Healthcare Administration (HADM) concentration in Allied Health Sciences prepares students interested in administration and managerial positions in hospitals, clinics, government planning and regulatory agencies, health maintenance organizations, hospital associations, consulting firms, computer vendors, health insurance companies, and hospital equipment and supplies manufacturers, etc. This concentration is also designed for students seeking admission into graduate programs such as the Department of Allied Health Sciences Master’s Program in Health Promotion as well as for those looking to enroll in graduate programs such as Public Health, Health Administration, Health Insurance Studies, Health Policy and Law, and others.

**Required courses:** AH 1100; ANTH 1000 or GEOG 1700; BIOL 1107; CHEM 1122 or 1124Q or 1127Q; CHEM 1125Q or 1128Q or PHYS 1010Q; COMM 1000 or 1100; MATH 1040Q or 1060Q or 1125Q or higher; NUSC 1165; PHIL 1000-level; PSYC 1101; PSYC 1101 or 1103; PSYC 2300, 2400; STAT 1000Q or 1100Q; and two (2) additional science courses approved by the Department of Allied Health Sciences. Science courses used to meet other program requirements cannot be used to meet this requirement. Courses used to satisfy this requirement must be two or more credits.

Writing in the major: AH 4240W
Group A major courses: (A-1) AH 4239 and 4240W; (A-2) all of the following: AH 2001, 3570, and ARE 3222; and (A-3) minimum of 9 credits (or three additional courses) from the following list of CAHNR course options: AH 3000, 3005, 3278, 3571, 3574, 4243, 4244, 4297W, ARE 4275 and DIET 3230. Courses cannot also be used to meet Group A-2 requirements. Other courses may be used to meet this requirement pending advisor and department head approval.

Group B major courses: Courses used to meet the Healthcare Administration concentration related cognate group B must be from the following: (B-1) ACCT 2001; BADM 2710 and 3730; HCM 3240 and 3243; (B-2) three (3) additional credits at the 2000-level or higher (refer to Plan of Study for options). Other courses may be used with advisor and department head approval.

Public Health and Health Promotion Concentration

The Public Health and Health Promotion (PHHP) concentration in Allied Health Sciences prepares students interested in working in a setting such as health and social service agencies, work site health promotion programs, government health agencies, hospital wellness programs, business, industry, and educational settings that emphasize health and wellness. This concentration is also designed for students seeking admission into graduate programs such as the Department of Allied Health Sciences Master’s Program in Health Promotion as well as for those looking to enroll in graduate programs such as Public Health, Gerontology, Health Education, Health Administration, Health Policy and Law, Health Psychology, or the Department of Allied Health Sciences Post-Baccalaureate Certificate in Health Promotion and Health Education.

Required courses: AH 1100; BIOL 1107; CHEM 1122 or 1124Q or 1127Q; CHEM 1125Q or 1128Q or PHYS 1010Q; COMM 1000 or 1100; MATH 1040Q or 1060Q or 1125Q or higher; NUSC 1165; PHIL 1000-level; PSYC 1100; PSYC 1101 or 1103; PSYC 2300, 2400; PUBH 1001; STAT 1000Q or 1100Q; and (A-2) two (2) additional science courses approved by the Department of Allied Health Sciences. Science courses used to meet other program requirements cannot be used to meet this requirement. Courses used to satisfy this requirement must be two or more credits.

Writing in the major: AH 4221W

Group A Major courses: (A-1): AH 4221W; (A-2) all of the following: AH 2001, 3175, 3275, 3570, and 4241; (A-3): A minimum of 6 credits (or two additional courses) of the following courses: AH 3005, 3571, 3573; ANSC 4341, 4642. Other courses may be used to meet this requirement pending advisor and department head approval.

Group B Major courses: Courses used to meet the Occupational and Environmental Health and Safety concentration related cognate group B must be from the following: (B-1) Two courses (minimum of 6 credits) consistent with focus (refer to plan of study for options); (B-2) nine (9) additional credits at the 2000-level or higher (refer to plan of study for options). Other courses may be used with advisor and department head approval.

Allied Health Sciences - Professional Majors

The Dietetics, Diagnostic Genetic Sciences and Medical Laboratory Sciences majors are professional majors in the Department of Allied Health Sciences. For program descriptions, please refer to the program listed alphabetically under the College of Agriculture, Health and Natural Resources. General admission and program information is described in this section.

Dietetics, Diagnostic Genetic Sciences, and Medical Laboratory Sciences are competitive junior/senior programs with additional admission requirements, certifications, and health documentation as listed below. Please contact the department for questions and further information on requirements that may vary for each program.

The admission requirements and mandatory documentation and certifications are only required of students admitted to the Department of Allied Health Sciences’ Professional majors. All other students do not need to complete this documentation unless required to do so as part of an optional internship course.

Admission

Admission for the Professional majors is competitive. The Professional majors in the Department of Allied Health Sciences are junior/senior programs. Students apply to their major(s) of choice in the spring of their sophomore year. To apply, students must have earned a minimum of 60 credits, by time of matriculation, completed all University General Education requirements, except the one W skill course within the major, and satisfied the prerequisite science courses of the major of application. Students are advised to complete all application procedures as early as possible in their fourth semester, but no later than February 1st annually. Admission is for the fall semester.

Guaranteed Admission Policy. Although freshmen are not admitted directly into the professional majors, the Department of Allied Health Sciences has a Guaranteed Admission Offer. This offer provides freshmen with direct admission in the junior year to the professional major of their choice if the student fulfills the criteria described under each major below. The Guaranteed Admission Offer is made to provide students with a clear and supportive environment in which to complete admission prerequisites and achieve their academic goals in the Department of Allied Health Sciences.

In order to qualify for Guaranteed Admission to the Professional majors in Diagnostic Genetic Sciences, Dietetics, or Medical Laboratory Sciences a student must: (1) have entered the University as a freshman; (2) apply to the major within two years of their freshman admission; (3) complete 3 successive semesters of full time study of required course work at the University of Connecticut; (4) must earn an Overall Grade Point Average of a minimum of a 3.2 for Diagnostic Genetic Sciences or must earn an Overall Grade Point Average of a minimum of a 3.0 for Dietetics, or Medical Laboratory Sciences, and (5) meet all Admission Requirements and file a Department of Allied Health Sciences Application by the deadline. Students meeting all of these criteria are guaranteed admission to the major.

University of Connecticut students who do not meet the Guaranteed Admission Offer will be reviewed competitively on a space available basis. Transfer Applicants to the professional majors will be reviewed on a space available basis once matriculated University of Connecticut students have been reviewed and offers of admission have been confirmed.

Transfer Admission. University transfer admission requires a minimum 2.7 GPA even though professional program admission requires a minimum 2.2 GPA. Transfer students must first be admissible to the University before an offer of admission can be extended by the Department of Allied Health Science.
Transfer students may require an additional year to complete requirements depending on how their prior coursework transfers and course availability at time of registration. Students are encouraged to take prerequisites at the University of Connecticut to expedite admission to a professional program.

Supplemental Academic Standards. The Department of Allied Health Sciences requires a cumulative grade point average of not less than 2.2 in order to gain admission to the professional majors. Thereafter, students must maintain the following standards of scholastic achievement to continue in the professional major. Students who fail to maintain the minimum grade point averages or minimum course standard in any of these areas are subject to dismissal from the professional program and in some cases the Department of Allied Health Sciences.

1. Students must maintain a minimum semester grade point average of 2.2
2. Students must maintain a minimum cumulative grade point average of 2.2
3. Students must maintain a minimum major grade point average of 2.2
   a. The Diagnostic Genetic Sciences Major GPA includes the following courses: AH 2001, 3121, 4241 and 4244; DGS 3222, 3223, 3225, 4224, 4234, 4235, 4236, 4246, 4248; and the Cytogenetics Concentration courses (DGS 4701, 4702, 4703, 4712, 4713, and 4550 or 4997), or the Molecular Concentration courses (DGS 4501, 4502, 4503, 4550 or 4997), and one of the following: DGS 4510, 4512, 4513, 4514, or 4515; and MCB 2400 or 2410, and MCB 2610.
   b. The Dietetics Major GPA includes all courses offered with the following departmental designations: AH, DIET, and the following NUSC courses: 2200, 3233, and 3234.
   c. The Medical Laboratory Sciences Major GPA includes all courses offered with the following departmental designations: AH, DGS and MLSC. Students receiving a grade less than a “C” in two or more courses with the departmental designations of AH, DGS or MLSC in any given semester are subject to dismissal from the Program and in some cases the Department of Allied Health Sciences.
4. Students must obtain a “C” or better in all courses required for graduation that are in the Department of Allied Health Sciences. Courses vary with program.
5. No student may take a course in the Department of Allied Health Sciences for which another course in the department is a prerequisite unless that student has earned a grade of “C” or better in that prerequisite course.
6. No course in the Department of Allied Health Sciences may be repeated more than once (for a total of two times).

Descriptions and specific course requirements of each of the Professional Majors of Diagnostic Genetic Sciences, Dietetics, and Medical Laboratory Sciences are included in individual programs sections listed in alphabetical order within this section of the Catalog.

Additional Requirements (May not apply to all Allied Health majors)

Health. In addition to pre-entrance University requirements, students admitted to the Professional Majors in the Department of Allied Health Sciences are required to have a tetanus immunization within the past ten years; physical examination; annual tuberculin test (with chest x-ray for positive reactors); rubella and rubeola titers (with vaccine if titer is negative); and varicella titer. Physical examinations, tuberculin tests and chest x-rays as indicated are planned through the University Student Health Services. In addition to the basic health screening requirements students in all professional majors are required to have Hepatitis B Immunization. Students are responsible for payment of health examinations and laboratory tests not covered by their personal insurance. Students who fail to provide written documentation that they have met the above stated health requirements will not be allowed in the clinical setting.

CPR. Dietetics students are required to have Adult or Healthcare Provider cardiopulmonary resuscitation certification upon admission into the professional major. Students in the Diagnostic Genetic Sciences or Medical Laboratory Sciences majors are not required to have CPR certification. CPR certification must be kept current until graduation.

Clinical Education Certification. The Department of Allied Health Sciences will provide annual mandatory educational sessions so that students entering a professional major and who are entering the clinical setting are in compliance with both the OSHA Bloodborne Pathogen Standards and are knowledgeable of the requirements for compliance with the Health Insurance Portability and Accountability Act (HIPAA). Students who fail to provide written documentation that they have met both the above stated OSHA and HIPAA requirements will not be allowed in the clinical setting.

Clinical Experiences. Each of the professional major curricula of the department requires education experiences in clinical settings. Assignment to clinical placements is contingent upon successful completion of the appropriate prerequisite course work and the judgment of the faculty of the preparedness of the student for safe practice. Additionally, students entering clinical placements must complete clinical documentation to include but not limited to a Medicare Exclusion waiver and in some clinical settings a criminal background check. Students will be notified if they are attending a clinical facility that requires this documentation. Students are responsible for payment of criminal background checks if part of their clinical affiliation.

Fees and Expenses. Students can expect fees to approximate those of other University students. The professional majors and internship students have added expenses for texts, uniforms and/or clinical travel. Students on clinical placement or doing an internship as part of their major are responsible for all expenses associated with the clinical/internship. Students are responsible for their own transportation to the clinical agencies/internship sites. They should allow for transportation expenses which could include parking fees, cost of gasoline and cost of air travel/bus/train where necessary. Students are required to pay full fees and tuition during off-campus clinical affiliations and internships. During periods spent full-time in the affiliated areas off-campus, if applicable it is the responsibility of the students to find living quarters and to provide their own maintenance.

Insurance. It is mandatory that students in the Department of Allied Health Sciences’ Professional majors carry comprehensive health insurance, either privately or through the University. Additionally, all students in the professional majors or relevant internships are required to carry specific professional liability (malpractice) insurance under the blanket University policy. Students will automatically be billed for this on the University fee bill.

Allied Health Sciences Post-Baccalaureate Certificate Programs

The Dietetic Internship is a certificate program administered by the Department of Allied Health Sciences’ Dietetics major in collaboration with Hartford Hospital. The internship provides the student with the performance requirements for entry-level dietitians through a minimum of 1200 hours of supervised practice. The Dietetic Internship is accredited by the Academy of Nutrition and Dietetics Commission on Accreditation for Dietetics Education,120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6695, (800) 877-1600. Students enrolled in this program are required to take six credits of didactic coursework at the graduate level to insure competency. Upon completion of the Dietetic Internship the student is eligible to take the National Registration Examination for Dietitians administered by the Commission on Dietetic Registration of the Academy of Nutrition and Dietetics. Students must pass this examination in order to be a Registered Dietitian.

The Diagnostic Genetic Sciences Certificate Program is open to individuals with a baccalaureate degree in Medical Laboratory Sciences, or the biological or natural sciences, and who meet the specific course prerequisites and academic standards. Students apply to one of two concentrations within this program: Cytogenetics or Molecular Diagnostics. Upon completion, the student receives a certificate from the College of Agriculture, Health and Natural Resources.

Upon successful completion of the Program, students are eligible to sit for the American Society for Clinical Pathology Board of Certification (ASCP BOC) certification examination in their concentration (Cytogenetics or Molecular Biology), immediately upon graduation.

The Medical Laboratory Sciences Certificate Program is open to individuals with a baccalaureate degree in the biological or natural sciences and who meet the specific course prerequisites and academic standards. Upon successful completion, students are eligible to sit for the National Board of Certification Examination administered by the American Society of Clinical Pathology (ASCP).

Prospective students are advised to contact the Department of Allied Health Sciences (860-486-2834) for program information and admission requirements.

Animal Science

This major provides six areas of interest leading to the B.S. degree: Pre-professional (veterinary medicine or graduate training), Biotechnology, Busi-
ness/Service, Equine Science, Food Science, and Production Management. For detailed information, please refer to: www.animalscience.uconn.edu.

Animal Science majors must pass all courses from Group A, at least one course from Group B, at least one course from Group C, and one additional course from either Group B or C. No single class can satisfy more than one requirement.

**Group A:** (All of the following): ANSC 1001, 1111, 3121, 3122, 3194, BIOL 1107, 1108; CHEM 1122 or 1127Q or both 1124Q and 1125Q; CHEM 2241 and 2242, or CHEM 2443 and 2444 and 2445; PV S 2100; One of the following: ANSC 4341, MCB 2000, MCB 2610

**Group B:** ANSC 2251, 2271, 3261, 3272, 3273

**Group C:** ANSC 3311, 3313, 3316, 3323, 3343, 3641, 4311, 4341 (if not already taken to fulfill Group A requirement)

To satisfy the general education requirement for the computer technology competency, students must meet the University's entrance expectations.

To satisfy the general education requirement for information literacy, students must pass ENGL 1010 or 1011 or 2011 and one of the following courses: ANSC 3312W, 3317W, 3324W, 3194, 3261, 3314W, 3344W, 3642W, 4312W, 4342W, or 4662W.

To satisfy the general education requirement for writing in the major, students must pass either ANSC 3312W, 3314W, 3317W, 3324W, 3344W, 3642W, 4312W, 4342W, or 4662W.

The Department of Animal Science offers minors in Animal Science, Dairy Management, Food Science, and Therapeutic Horsemanship Education. These are described in the “Minors” section of this Catalog.

### Diagnostic Genetic Sciences

The Diagnostic Genetic Sciences major leads to a Bachelor of Science degree and offers two concentrations: Cytogenetics and Molecular Diagnostics. Cytogenetic technologists study blood, bone marrow, solid tissues, and amniotic fluid for chromosomal abnormalities that are associated with genetic malformations and diseases like cancer. Molecular technologists evaluate and investigate DNA and RNA with regards to disease, identity, cancer and forensics. The on-campus course requirements for the two emphasis areas are the same, but the clinical courses differ.

Both concentrations are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) (5600 N. River Road, Suite 70, Rosemont, IL 60018-5119, phone: 773-714-8890). Graduates are eligible to take the American Society of Clinical Pathology Board of Certification (ASCP BOC) certification examination in their concentration (Cytogenetics or Molecular Biology) immediately upon graduation.

**Requirements**

The course requirements listed below may also be used to satisfy the University's General Education requirements.

**Mathematics and Science Courses** - CHEM 1124Q and 1125Q or CHEM 1127Q and 1128Q; CHEM 2241 or CHEM 2443 and 2444; BIOL 1107; MATH 1040Q or 1060Q or 1125Q or above; MCB 2400 or 2410*, 2610*; STAT 1000Q or 1100Q. *At least one of these courses must be completed prior to starting the program.

**Professional Courses** - AH 2001, 3121, 4241, 4244; DGS 3222, 3223, 3225, 4224, 4234W, 4235, 4236, 4246, 4248; Cytogenetics Concentration Clinical Courses: 4701, 4702, 4703, 4712, 4713, 4750 or 4997; Molecular Concentration Practicum Courses: 4501, 4502, 4503, 4550 or 4997; and one of the following: 4510, 4512, 4513, 4514, 4515.

**Writing in the Major** - DGS 4234W.

**Computer Technology** - University entry-level competencies have been reviewed and satisfy all program requirements.

**Information Literacy** - Competencies will be met through successful completion of program major courses.

### Dietetics

The Dietetics major leads to a Bachelor of Science degree. The program combines theory in the classroom with supervised practice in clinical dietetics, community nutrition, and food service sites off campus to prepare students to sit for the National Registration Examination for Dietetics and earn the credential of RD. Dietitians assess nutritional needs, plan individualized dietary plans, provide counseling and evaluate nutritional care for individuals and groups.

The Dietetics major is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6695, (800) 877-1600. Students in the Dietetics Coordinated Program will graduate in May of their senior year, but must also complete a 6 credit externship immediately thereafter in order to receive a verification statement certifying that all coursework and supervised practice requirements have been completed. This statement qualifies the student to sit for the national registration examination, which they must pass in order to become a Registered Dietitian. The externship entails 6 weeks (40 hours/week) of intensive supervised practice experiences. Students will register for the externship as a non-degree student and will incur an additional expense.

**Requirements**

The course requirements listed below may also be used to satisfy the University’s General Education requirements.

**Mathematics and Science Courses** - CHEM 1124Q and 1125Q or CHEM 1127Q and 1128Q; BIOL 1107; STAT 1000Q or 1100Q; MCB 2000, 2610; PNB 2264 and 2265; CHEM 2241; NUSC 1165, 1167, 2200, 3233, 3234

**Social Sciences** - One 1000-level or higher course in either psychology or sociology

**Professional Courses** - AH 4241, 4242, 4244, DIET 3150, 3155, 3215, 3230, 3231W, 3235, 3250, 3255, 3272, 4272, 4350, 4360, 4365, 4370, 4415, 4435, 4455, 4470, 4475

**Writing in the Major** - DIET 3231W.

**Computer Technology** - University entry-level competencies have been reviewed and satisfy all program requirements.

**Information Literacy** - Competencies will be met through successful completion of program major courses.

### Environmental Sciences

The major in Environmental Sciences is based in the physical and biological sciences, but also includes course work in selected areas of the social sciences. The major leads to a Bachelor of Science degree, and may be adopted by students in either the College of Agriculture, Health and Natural Resources or the College of Liberal Arts and Sciences. This curriculum offers a comprehensive approach to the study of environmental problems, including not only a rigorous scientific background, but also detailed analyses of the social and economic implications of environmental issues. The complexity and interdisciplinary nature of environmental science is reflected in the core requirements of the major. These courses, assembled from different academic departments representing two colleges, provide both breadth and depth, preparing students for careers that deal with environmental issues, and for graduate study in environmental sciences and related fields.

**Required courses in Basic (Natural) Sciences**

BIOL 1107 and BIOL 1108 or 1110; CHEM 1124Q, 1125Q, 1126Q or 1127Q, 1128Q; MATH 1131Q, 1132Q; PHYS 1201Q, 1202Q, or 1401Q, 1402Q; STAT 1000Q or 1100Q or 3025Q; NRE 1000.

ARE 1150; ECON 1200 or 1201; GEOG 2300; GSCI 1050; and MARN 1002 are prerequisites for several upper division course concentration options. It is the student’s responsibility to ensure that all pre-requisites in the catalog for concentration courses have been satisfied.

**Required Sophomore Seminar Course**

A 2000-level environmental sciences sophomore seminar course as approved by the advisor.

**Required Capstone Course**

NRE 4000W (3 credits). Completion of NRE 4000W satisfies the writing in the major and information literacy exit requirements.

**Required Internship or Research Experience**

1-6 credits of internship and/or research experience. Internship and/or research experience must be approved by the student’s advisor.
Area of Concentration
All students majoring in Environmental Sciences must declare and fulfill the requirements of a concentration in a discipline associated with the program before graduation. Approved concentrations are listed below.

Sustainable Systems Concentration: Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.


Students must complete at least one course from each of the following Knowledge Competencies.

Built Systems: AH 3175; HORT 3765; LAND 3230W; NRE 3265.
Governance and Policy: AH 3174; ARE 3235, 3434, 3437, 4438, 4462; ECON/MAST 2467; GEOG 3320W; MAST/POLS 3832; NRE 3201, 3245, 3246; POLS 3412; SOCI 3407/W. Ethics, Values, and Culture: ANTH 3339; ENGL 3240, 3715; GEOG 3410; HIST 3540, 3542; JOUR 3046; PHIL 3216; SOCI 2701, 2705, 2709W, 3407/W. Economics and Business: ARE 3235, 4305, 4438, 4444, 4462, 4464; ECON/MAST 2467; ECON 3466, 3473.

Global Change Concentration: Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

Climate Change and its Impacts: GEOG 3400, 4300; GSCI 3010; MARN 3000; NRE 3115, 3146, 4170. Land and Ocean Use and its Impacts: EEB 2208; GEOG 3310, 3410; GSCI 3020; GSCI/MARN 3230; HORT 3765; MARN 3001, 3030, 4066; NRE 2215, 2325, 3245, 3015, 3115, 3155, 4340; NRE 4135/GSCI 4735. Natural Science: CHEM 4370, 4371; EEB 2244/W, 2245/W, 3247; EEB 3230/MARN 3014; EEB/GSCI 4120; GEOG 2300; MARN 2002, 2060, 3030Q, 4030W, 4060; NRE 2455, 3125, 3145, 3205; SOIL 2120, 3410.

Students must complete at least one course from each of the following Knowledge Competencies.

Methods: EEB 4230W; ENVE 2251; GEOG 3300, 3500Q, 4230; GSCI/MARN 3505; GSCI 3710, 4230; MARN 3003Q; NRE 2000, 2010, 3305, 3345/W, 3535, 4335, 4475, 4535, 4544, 4545, 4575, 4665; PHYS 2400; STAT 2215Q, 3025Q. Governance and Policy: AH 3174; ARE 3235, 3434, 4337, 4438, 4462; ECON/MAST 2467; GEOG 3320W; MAST/POLS 3832; NRE 3201, 3245, 3246; POLS 3412; SOCI 3407/W.

Human Health Concentration: Students must pass all of the following: AH 3021, 3175, 3275; ANSC 4341; MCB 2610. Students must pass two of the following: totaling 6 or more credits: ANSC 4642; MCB 2400, 3010, 3011, 3201, 3633, 4211; PVS 2100. Students must pass one of the following: AH 3570, 3571, 3573, 3574; PVS 4300.

Note: A major in Environmental Sciences is also offered by the College of Liberal Arts and Sciences. For a complete description of the major in that college, refer to the Environmental Sciences description in the “College of Liberal Arts and Sciences” section of this Catalog.

Environmental Studies
The Environmental Studies major is an interdisciplinary program designed to provide students with the knowledge, skills, and perspectives needed to understand the interactions between human society and the environment. Understanding the ethical and cultural dimensions of our relationship with the environment, as well as the challenges of protecting it, requires insights from multiple perspectives, including the humanities, the social sciences, and the natural sciences. Core courses in the major ensure familiarity with basic principles from these three areas. With this shared core of knowledge, majors will focus their studies on an area of special interest, taking electives and related courses that allow greater specialization. Among the many possibilities are environmental sustainability, issues concerning public policy and environmental justice, and the literary and philosophical legacy of human encounters with the non-human world. A capstone course will allow each student to research a distinct perspective on a contemporary environmental issue. A major in Environmental Studies might lead to a career in a variety of fields, including public policy, environmental education, eco-tourism, marketing or consulting, journalism, or advocacy.

The major leads to a Bachelor of Arts degree in the College of Liberal Arts and Sciences (CLAS) or the College of Agriculture, Health and Natural Resources (CAHNR). The student’s choice of colleges should be made in consultation with faculty and advisors based upon the student’s interests and career goals.

Requirements:
Introductory Courses: All majors must take three introductory courses: EVST 1000; NRE 1000, GEOG 2300, GSCI 1050 or GSCI 1051; BIOL 1102 or, for those seeking a more advanced background, BIOL 1108.

Core Courses (18 credits): All majors must take two of the following courses from each core. Students cannot apply more than one course per department to count within a particular core. Additional core courses taken in the same department can be applied to the additional major requirements beyond the core requirements.

Humanities Core: PHIL 3216; HIST 3540 or 3542; ENGL 3240 or 3715 or JOUR 3046.

Social Sciences Core: ARE 3434 or 4462 or ECON 3466; NRE 3245; NRE 3246; POLS 3412.

Natural Science Core: EEB 2208, GEOG 3400, AH 3175, GSCI 3010; NRE 4170.

Capstone Research Project: EVST 4000W (3 credits). All majors must complete a capstone research project, which fulfills the Writing in the Major and the Information Literacy requirements for the major.

Additional requirements for the major
In addition, environmental studies majors in CAHNR must take an additional 15 credits of courses at the 2000-level or above to meet the 36-credit major requirement. These courses must be designed to form a coherent set of additional courses that will provide the student with a focus or additional depth in an area of interest related to the major. They must be chosen in consultation with the student’s faculty advisor and be approved by the advisor. Courses listed above that are not used to meet the core requirements may be used to meet this requirement.

Other areas of recommended preparation (not required):
- Physical Science: CHEM 1122, 1127Q; PHYS 1030Q/1035Q
- Earth Science: GSCI/GEOG 1070; MARN 1002/1003
- Economics: ARE 1110, 1150; ECON 1179, 1200, 1201
- Statistics: STAT 1000Q, 1100Q

Note: A B.S. in Environmental Sciences can also be earned through the College of Liberal Arts and Sciences. For a complete description of the major in that college, refer to the Environmental Sciences description in the “College of Liberal Arts and Sciences” section of this Catalog.

Horticulture
The Horticulture major focuses on sustainable plant production and the use of plants to enhance human environments. The core curriculum includes biology, chemistry, plant propagation, plant identification, plant physiology, and soil science. Students must select a concentration emphasizing either environmental and landscape horticulture or sustainable agricultural production. Complementary courses are available in plant biotechnology, turfgrass science and soil science. (For detailed information, please refer to: www.plantscience.uconn.edu)

Horticulture majors must pass the following core requirements:
- BIOL 1110; CHEM 1122 or 1124Q or 1127Q; HORT 2560W, 3640; PLSC 3840, 4210, 4215; SOIL 2120, 2125;
- Two of: HORT 2430, 3410, 3560;
- Two of PLSC 3810, 3820, 3830

In addition to the core requirements, horticulture majors must complete the requirements for one of the following concentrations:

Environmental and Landscape Horticulture
- TURF 1100; HORT 2750
- One of HORT 3765; SOIL 3620
letic Training. All prospective Athletic Training students must be enrolled in a program that prepares students for a professional career in the field of Athletic Training. All prospective Athletic Training students must be enrolled in a program that prepares students for a professional career in the field of Athletic Training. Students must submit required personal recommendations confirming their professional experience related to their career choice, have written acceptable essays, have met the deadline, have competitive aptitude test scores, have accumulated sufficient academic work in Exercise Science.

Students who intend to pursue a kinesiology major declare as pre-kinesiology. Most students participate in the services offered by the Academic Center for Student Development. The Department of Kinesiology offers majors in Athletic Training and Exercise Science. It has well-equipped laboratories in Exercise Physiology, Exercise Biochemistry, and Sport Biomechanics.

The Department of Kinesiology offers majors in Athletic Training and Exercise Science.

Kinesiology Programs

The Department of Kinesiology provides students with the opportunity to pursue an undergraduate degree in areas emphasizing exercise science and exercise research. It has well-equipped laboratories in Exercise Physiology, Exercise Biochemistry, and Sport Biomechanics.

The Department of Kinesiology offers majors in Athletic Training and Exercise Science.

Most students participate in the services offered by the Academic Center for Exploratory Students (ACES) during their freshman and sophomore years. Students who intend to pursue a kinesiology major declare as pre-kinesiology.

Admission

During sophomore year, students must submit an application and all supporting materials by November 1 for the Athletic Training major, and February 1 for Exercise Science.

Successful applicants to Kinesiology majors generally have completed sufficient credits to be eligible for consideration, have applied by the annual deadline, have competitive aptitude test scores, have accumulated sufficient experience related to their career choice, have written acceptable essays, have submitted required personal recommendations confirming their professional potential, and have earned the most competitive grade point average. The Athletic Training Education major is a competitive and selective academic program that prepares students for a professional career in the field of Athletic Training. All prospective Athletic Training students must be enrolled in a program that prepares students for a professional career in the field of Athletic Training. All prospective Athletic Training students must be enrolled in a program that prepares students for a professional career in the field of Athletic Training. All prospective Athletic Training students must be enrolled in a program that prepares students for a professional career in the field of Athletic Training. All prospective Athletic Training students must be enrolled in a program that prepares students for a professional career in the field of Athletic Training.

Individualized Major

The Individualized Major program allows students to create a major that is not otherwise offered at the University of Connecticut. Students pursuing an Individualized Major must meet all university-level and college-level requirements for graduation and complete at least 36 credits numbered 2000 or above. Requirements for declaring and completing an Individualized Major are listed below:

- Students must be in good academic standing with a minimum GPA of 2.5 to declare an Individualized Major.
- Students must submit a proposed statement of purpose and identify three faculty members who are willing to serve as an advisory committee.
- An Individualized Major has a minimum of 36 credits numbered 2000 or above courses which must: be from two or more departments; include at least 18 credits from departments in the College of Agriculture, Health and Natural Resources; be approved by the student’s advisory committee; be taken at the University of Connecticut; have a combined Grade Point Average of at least 2.5; include no more than 6 credits of Independent Study and Internship; not to be taken on Pass/Fail; meet all requirements of the “36 Credit Group” of the College of Agriculture, Health and Natural Resources.

To satisfy the general education requirement for the computer technology competency, Individualized Majors must meet the University’s entrance expectations. They will not have to meet any advanced requirement for computer technology.

The writing in the major and information literacy requirements will be satisfied by meeting these requirements for any of the majors within the College of Agriculture, Health and Natural Resources.

Exercise Science

Exercise Science prepares students to analyze sport and exercise performance in a physiological context. The majority of students use this major to prepare for graduate study in exercise physiology. Other students have used this major in preparation for medical school, physician assistant programs, and physical therapy. Students complete coursework in general education, cognate areas, and kinesiology. Requirements include: BIOL 1107, 1108; CHEM 1127Q, 1128Q; 2241 or 2443; COMM 1100; MATH 1060Q or 1131Q; MCBB 2000 or 3010; NUSC 1165; PHYS 1201Q, 1202Q; PNB 2264-2265; PSYC 1100; STAT 1000Q or 1100Q; KINS 1160, 2100, 2110, 3100, 3101, 3102, 3103, 3104, 3110, 3111, 3112, 3113, 3114, 3115, 3120, 3122, 3125, 3130, 3140, 3150, 3155W, 3156, 3160, 3165W, 3170, 3177, 3522, 3545, 4510W.

Related Electives: Students select a minimum of 12 credits from the following courses: CHEM 2444 (if CHEM 2443 was taken), 2445 (if CHEM 2444 was taken or taken concurrently); MCBB 2210, 2410, 2610, 3011, 3201, 3219, 4211; NUSC 4250; PV 3400; PNB 2250, 3251, 3262; PSYC 2200, 3601 (if PSYC 1101 or 1103 was taken).

All students in the Department of Kinesiology majors will be required to successfully complete two writing intensive courses within the College of Agriculture, Health and Natural Resources. The W courses in each of the major program fields will develop writing skills specific to the content area domain as well as be consistent with the practices of professionals in the areas of athletic training and exercise physiology. Courses that will satisfy the W requirement include: KINS 3099W, 3155W, 3165W, 3350W, 3697W, and 4510W. The information literacy competency requirement for students in the Department of Kinesiology will be satisfied by the successful completion of the W courses within each major.

Accreditation

The Athletic Training Education Program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Upon completion of the program, students are eligible to take the National Athletic Trainers Association, Board of Certification (BOC) administered certification examination. Students who pass the BOC Certification Examination will be eligible for athletic training licensure or other state requirements for practice.

Landscape Architecture

This major provides instruction in site planning and design, landscape history, landscape architectural graphics and presentation. It includes the use of plants and other features to enrich exterior spaces. Through seminars, studio projects and internships, students learn to apply theory to actual case studies. The program is accredited by the American Society of Landscape Architects. For detailed information, please refer to: www.cag.uconn.edu/plsc/plsc/students/undergrad/landscape_architecture.php

Landscape Architecture majors must pass the following courses:
Natural Resources

This major, offered by the Department of Natural Resources and the Environment, prepares students for careers related to the management of natural resources. Students develop skills in applying modern technology, concepts and principles dealing with sustainable development, environmental protection and resource conservation. In addition to core requirements, all students must complete one or more of the following concentrations: Climate and Water Resources, Environmental Conservation, Fisheries and Wildlife Conservation, Forest Resources, or Geomatics. (For detailed information, please refer to www.nre.uconn.edu)

Competency Requirements: Students successfully completing the courses listed below will have met their General Education information literacy exit requirements for this major. Students are expected to have gained additional computer technology competency in the fields of geographic information systems (GIS) and Global Positioning System (GPS) data collection and processing. Students will gain these competencies by passing NRE 2000. Students passing NRE 4000W will satisfy the writing competency requirement within the major.

All Natural Resources majors must pass the following core requirements:

- NRE 1000, 2000, 2010, 4000W, 4094; BIOL 1107 or 1108 or 1110; CHEM 1122 or 1124Q or 1127Q; MATH 1060 or 1131; SOIL 2120 and 2125 or GSCI 1050; PHYS 1201Q or 1401Q; STAT 1100

In addition to the core requirements, all students must complete one or more of the following concentrations:

Climate and Water Resources

- All of the following: NRE 2215, 3125, 3146, 4135
- Three courses from the following: EEB 3247; NRE 3105, 3115, 3145, 3155, 3205, 4535
- Two additional courses from the following: EEB 3247; GSCI 3020; MARN 3000; NRE 3105, 3115, 3145, 3155, 3205, 3245, 3246, 3535, 4165, 4170, 4535, 4575, 4665

Environmental Conservation

- All of the following courses: ARE 1150 or ECON 1201; COMM 1100; EEB 2244 or 2244W; NRE 1235, 3245, 3246 and 3690.
- Three courses from the following: ARE 3434 or 3434 and 3440W, 4438, 4462; COMM 4410W; NRE 4600; POLS 3842; SOCI 3407

Fisheries and Wildlife Conservation

Students must pass the following courses:

- EEB 2214, 2244 or 2244W; NRE 2345, 3245, 3246, and 3335 or 4335, 4370
- One course from the following: EEB 3254, 3265, 4200 or 4260 and 4261
- One course from the following: EEB 2208, 3247, NRE 2325, 2455, 3105, 3205, 3345 or 3345W, 4340

International Studies of Sustainable Natural Resources

- One 3 credit NRE course in global sustainable resources approved by the department
- Two of the following: NRE 2215, 2345, 2455
- Two of the following: NRE 3246, 4170; SOCI 3407; GEOG 3410
- 12 - 15 credits of an approved Education Abroad experience (appropriate language course would count)

Sustainable Forest Resources

- All of the following: NRE 2345, 2415, 2455, 3125, 3500, 3690, 4475
- One course from the following: NRE 4544, 4545 or 4575 and
- One course from the following: NRE 3246, ARE 3434 or ARE 3434 and 3440W

Medical Laboratory Sciences

Medical Laboratory Scientists apply biological and chemical principles to perform, interpret, and correlate laboratory analyses on body fluids and tissues. Medical Laboratory Scientists are responsible for selecting appropriate methods and implementing quality assurance for tests designed to promote health, and prevent, diagnose and treat diseases.

The Medical Laboratory Sciences major leads to a Bachelor of Science degree. The MLS Program has “Serious Applicant” status awarded by National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018-5119, phone (773) 714-8880 and is expected to be fully accredited by Spring 2014. Graduates are eligible for the National Board of Certification examination administered by the American Society for Clinical Pathology (ASCP) immediately upon graduation.

Requirements

The course requirements listed below may also be used to satisfy the University’s General Education requirements.

Mathematics and Science Courses. CHEM 1124Q and 1125Q or CHEM 1127Q and 1128Q; CHEM 2241 or CHEM 2443 and 2444; BIOL 1107; MATH 1040Q or 1060Q or 1125Q or above; STAT 1000Q or 1100Q; MCB 2000; 2400 or 2410; PVS 4300 or PN2 2264 and 2265 or 2274 and 2275.

Professional Courses. AH 2001, 3121, 4241, 4244; DGS 4234, 4235; MLSC 3130, 3132, 3301, 3333, 3365, 4094W, 4301, 4302, 4311, 4312, 4321, 4322, 4341, 4342, 4351, 4352, 4366, 4371, 4372

Writing in the Major. MLSC 4094W.

Computer Technology. University entry-level competencies have been reviewed and satisfy all program requirements.

Information Literacy. Competencies will be met through successful completion of program major courses.

1. BIOL 1108 or 1110
2. CHEM 1122 or 1124Q or 1127Q
3. HORT 3410; SOIL 2120; LAND 2110, 2120, 2210, 2220, 2410, 3130, 3230W, 3310, 3320, 3330, 3430, 4294, 4340, 4440, and 4450
One of the following: HORT 2430, 2750, 3765; PLSC 4210; SOIL 3520; EEB 4272; NRE 2415

Supplementary Scholastic Standards. Accreditation and space restrictions necessitate that the number of students in the Program of Landscape Architecture be limited. All students choosing the landscape architecture major will be evaluated after they have taken introductory landscape architecture courses LAND 2110 and 2210. Minimum requirements for continuance in the Program of Landscape Architecture are a cumulative grade point average of 2.5 or better and a grade of 3.0 (B) or better in both introductory courses. For students meeting these requirements, faculty evaluation of a portfolio of work produced in introductory courses, student essay and GPA will determine final acceptance into the Program.

Thereafter students must maintain a cumulative grade point average of 2.5 or better, and must earn grades of 2.7 (B-) or better for all major (LAND) courses. Students who receive more than one grade below 2.7 (B-) in major (LAND) courses will be dismissed from the major. Courses may be retaken if space allows, with permission of the instructor, but no course in the Program of Landscape Architecture may be repeated more than once (for a total of two times).

Students who do not meet the requirements may want to consider other majors including Horticulture or Turfgrass and Soil Science. For detailed information, refer to www.eag.uconn.edu.

Students successfully completing these courses will have met their general education exit requirements for computer technology and information literacy.

Landscape Architecture majors must take LAND 3230W to fulfill their requirement for writing in the major.

Minors in Integrated Pest Management, Landscape Design and Ornamental Horticulture are described in the “Minors” section.
Nutritional Sciences

Students majoring in Nutritional Sciences pursue one of two areas of emphasis: Dietetics or Nutritional Sciences. Each area follows a different curriculum including non-departmental courses, in order to best prepare students for their future goals. Students preparing to become registered dietitians follow the Didactic Program in Dietetics which is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). 216 W. Jackson Blvd., Chicago, IL 60606-6695. (312) 899-5400.

Admission requirements. Students not admitted to the University as Nutritional Sciences majors may petition into this major during the first two weeks of each semester. The following petition requirements must be met for consideration of a major change into the Nutritional Sciences major:
1. Earned at least a C in CHEM 1124Q or CHEM 1127Q and a C- in CHEM 2241 or CHEM 2443
2. Earned at least a B in NUSC 1165 and 2200

Nutritional Sciences majors must successfully pass the following courses: NUSC 1165, 2200, 4236, and either 4237W or 4296W; MCB 1107; CHEM 1124Q and 1125Q or CHEM 1127Q and a C- in CHEM 2241 or CHEM 2443

In addition to the courses listed above, a minimum of 6 credits, numbered 2000-level or above, must be earned from courses in the Department of Nutritional Sciences. Credits earned in field experiences and independent studies cannot be used to meet this 6-credit requirement. Specific course recommendations are listed in the Undergraduate Bachelor Degree Program brochure in the department.

Students must take either NUSC 4237W or 4296W to fulfill their writing in the major requirement and the advanced information literacy requirement. There are no advanced requirements for computer technology.

A minor in Nutrition for Exercise and Sport and a minor in Food Science are described in the “Minors” section.

Didactic Program in Dietetics. Nutritional Science students preparing to apply for a dietetics internship in preparation to become registered dietitians may enroll in the Didactic Program in Dietetics at the University of Connecticut, which is currently granted accreditation by: Accreditation Council for Education in Nutrition and Dietetics (ACEND), 216 W. Jackson Blvd., Chicago, IL 60606-6695; (312) 899-5400, (800) 877-1600.

To declare a concentration in the Didactic Program in Dietetics within the Nutritional Sciences major, students must have a minimum of 60 credits, a cumulative GPA of 2.7 or higher, and have successfully completed the following courses:

- NUSC 1165 and NUSC 2200 with a B grade or better;
- CHEM 1124Q and 1125Q or CHEM 1127Q and 1128Q; CHEM 2241 or 2443 and 2444;
- MCB 1107, with a C grade or better.

To earn a verification statement, students must meet the above grade requirements; complete the core requirements for all Nutritional Science majors; and earn a Didactic Program in Dietetics GPA of at least 2.7 by successfully completing the following courses:

- NUSC 1167, 3150, 3230, 3233, 3234, 3245, 3250, 3271, 3272, 4272;
- MCB 2610;
- AH 4242 or EPSY 3010; AH 4244;
- STAT 1000Q or 1100Q;
- SOCI 1001 or PSYC 1100

A minor in Wildlife Conservation is described in the “Minors” section.

Pathobiology

Students majoring in Pathobiology focus on animal health and diseases and their relationship to people and the environment. Students can prepare to enter veterinary medical schools or medical schools. Pathobiology majors also pursue careers in biotechnology, biomedical sciences, para-veterinary medicine, and many diverse laboratory and research positions in health fields, and agriculture and natural resources. For detailed information, please refer to: www.patho.uconn.edu.

Pathobiology majors must pass the following courses: PVS 1000, PVS 2100 or PN6 2246-2265 or PNV 2274-2275; PVS 3100 and PVS 4300; MCB 2610; One course in Biochemistry: MCB 2000 or MCB 3010; One course in Genetics: MCB 2410, or ANSC 3121; One course in Nutrition, Immunology, or Cell Biology: ANSC 1111, NUSC 1165, MCB 2210, 4211, or AH 3121; One of the following courses: PVS 2301, 3201 or 3201W, 3341, 3501, 4351

Students must pass either PVS 3094W or 3201W to fulfill their writing in the major requirement. The advanced information literacy requirement is fulfilled by passing PVS 3094W or 3201W. There are no advanced requirements for computer technology.

Resource Economics

This major in the Department of Agricultural and Resource Economics applies analytical and decision-making skills to problems of production and distribution of food products, and the management of natural resources and the environment. The Resource Economics major places a high priority on program flexibility and individualized attention. In addition to meeting the general education requirements of the University and the College, students majoring in Resource Economics are expected to take a common core of courses. Students may concentrate in one or more of the following areas: Marketing and Business Management, Environmental Economics and Policy, and International Development. Concentration areas are optional (not required to fulfill the requirements for the major). For detailed information, please refer to www.are.uconn.edu.

Competency Requirements. All Resource Economics majors must pass ARE 1150 or ECON 1200 or ECON 1201; and ARE 3150. Students must also pass either ARE 3261W or 3440W to fulfill their writing in the major requirement. The advanced information literacy requirement is fulfilled with either ARE 3261W or 3440W. There are no advanced requirements for computer technology.

Concentrations. Resource Economics majors may concentrate in one or more of the following areas: Marketing and Business Management, Environmental Economics and Policy, and International Development. Majors choosing a concentration are required to complete 18 credits from the list of specified courses for a given concentration. A minimum of nine credits of ARE courses at the 3000-level or above are required for each concentration.

Marketing and Business Management: ARE 3210, 3215, 3221, 3222, 3225, 4217, 4275, 4279; ECON 2411; with approval of advisor up to 3 credits of any 3000-level or above course.

With approval of advisor, additional courses in ARE or in related fields can be used to fulfill the 36-credit requirement for the major with this area of concentration.

Environmental Economics and Policy: ARE 3260, 3434, 3437, 4305, 4352, 4444, 4446, 4462, 4464; GEOG 2100; NRE 3245; with approval of advisor up to 3 credits of any 3000-level or above course.

With approval of advisor, additional courses in ARE or in related fields can be used to fulfill the 36-credit requirement for the major with this area of concentration.

International Development: ARE 3260, 3434, 3437, 4279, 4305, 4444, 4464; ANTH 3151, 3325; ECON 2440, 2456, 3421/W, 3473/W; GEOG 2100, 3100; POLS 3402, 3410; SOCI 3701; WGSS 2267, 3216; with approval of advisor up to 3 credits of any 3000-level or above course.

With approval of advisor, additional courses in ARE or in related fields can be used to fulfill the 36-credit requirement for the major with this area of concentration.

Minors in Agribusiness Management, Environmental Economics and Policy, and Equine Business Management are described in the “Minors” section.

Geomatics

NRE 4535, 4544, 4545, and 4575; Two courses from the following: NRE 3535, CE 2410; GEOG 2300, 2500, 2505; MATH 1125Q or higher; Three courses from the following: CSE 1010 or 1100; NRE 2415, 2455, 3105, 3125, 3155, 3146, 4475, 4665, 4689, 5461, 5555

A minor in Geomatics is described in the “Minors” section.

International Development

International Development: ARE 3260, 3434, 3437, 4279, 4305, 4353, 4444, 4446, 4462, 4464; ANTH 3151, 3325; ECON 2440, 2456, 3421/W, 3473/W; GEOG 2100, 3100; POLS 3402, 3410; SOCI 3701; WGSS 2267, 3216; with approval of advisor up to 3 credits of any 3000-level or above course.

With approval of advisor, additional courses in ARE or in related fields can be used to fulfill the 36-credit requirement for the major with this area of concentration.

Environmental Economics and Policy: ARE 3260, 3434, 3437, 4279, 4305, 4353, 4444, 4446, 4462, 4464; ANTH 3151, 3325; ECON 2440, 2456, 3421/W, 3473/W; GEOG 2100, 3100; POLS 3402, 3410; SOCI 3701; WGSS 2267, 3216; with approval of advisor up to 3 credits of any 3000-level or above course.

With approval of advisor, additional courses in ARE or in related fields can be used to fulfill the 36-credit requirement for the major with this area of concentration.

Minors in Agribusiness Management, Environmental Economics and Policy, and Equine Business Management are described in the “Minors” section.
Turfgrass and Soil Science
This major offers two areas of concentration. Turfgrass Science includes the management of golf courses, athletic fields, lawns, roadsides, erosion control sites, and other areas where grasses are grown. The Soil Science option prepares students for employment with local, state and federal government agencies, as well as private consulting and research firms. Courses focus on soil identification, reactivity, root zone construction, and soil management and suitability for different uses. For detailed information, please refer to: www.plantscience.uconn.edu.

Students in the Soil Science concentration must pass the following courses:
BIOL 1107 or 1108 or 1110; CHEM 1124Q or 1127Q; GSCI 1050; SOIL 2120 and 2125.

Must have 36 credits from the following list with a minimum of 9 credits from SOIL courses: ARE 3434; GSCI 3010, 3020, 4110, 4210; LAND 3230W; NRE 3155, 3535, 4000W, 4165; SOIL 3410, 3520, 3620, 4420; TURF 3200W.

Students in the Soil Science concentration must pass LAND 3230W or NRE 4000W or TURF 3200W to fulfill their requirement for writing in the major. Students successfully completing these courses will have met their general education exit requirements for information literacy. Computer technology competency is satisfied by University entrance expectations.

Students in the Turfgrass Science concentration must pass the following courses:
BIOL 1108 or 1110; CHEM 1122 or 1124Q or 1127Q; PLSC 4210, and 4215; SOIL 2120, 2125, 3520, 3620; TURF 1100, 3200W, 3800
6 credits from: HORT 2430, 2750, 3410, 3640, 3660, 3765
6 credits from: PLSC 3810, 3820, 3830, 3840
6 credits from: HORT 2430, 2750, 3410, 3640, 3660, 3765
Students must earn a minimum of 9 additional credits in courses from the subject areas of Biology, Chemistry, Computer Science, Geoscience, Mathematics, Physics, or Statistics.

Students in the Turfgrass Science concentration must pass TURF 3200W to fulfill their requirement for writing in the major. Students successfully completing the required courses will have met their general education exit requirements for information literacy. Computer technology competency is satisfied by University entrance expectations.

A minor in Turfgrass Management is described in the “Minors” section.

Double Major Option
Students may elect to complete requirements for two major fields of study offered by the College of Agriculture, Health and Natural Resources. A student selecting this option must submit a Double Major Declaration indicating primary and secondary majors. This declaration must include a tentative plan of study and requires approval by the advisors and department heads for both respective major areas of study and the Associate Dean. The approved declaration will be submitted to the Degree Auditor. The student’s final plan of study will include a double major attachment to verify that the requirements have been met for both the primary and secondary majors. The transcript will identify both majors.

Primary Major: Students must meet all requirements as listed under “Requirements for a Major” (36 credit group) and all individual major requirements as listed above.

Secondary Major: Students must meet all individual major requirements as listed above and successfully complete additional course work numbered 2000 or above not used as part of the 36 credit group for the primary major.

This group of courses must:
1. Total at least 24 credits
2. Be numbered 2000 or above
3. Be approved by student’s advisor and department head
4. Be taken at the University of Connecticut
5. Include at least 15 credits of College of Agriculture, Health and Natural Resources courses
6. Average at least a 2.0 Grade Point Average
7. Not include more than six credits of Independent Study and Internship
8. Not be taken on Pass/Fail
9. Not include more than 6 credits of S/U coursework

Pre-Physical Therapy, Pre-Medical, and other Health Related Pre-professional Programs. Students preparing for professional careers in physical therapy, human medicine, dentistry, physician’s assistant and other post-baccalaureate health programs may major in Allied Health Sciences, Kinesiology, Nutritional Sciences, or Pathobiology, as well as many other science-based majors throughout the University. Pre-professional programs in the College of Agriculture, Health and Natural Resources are offered as structured options within majors, rather than as official, stand-alone majors. This allows students to consider multiple career goals without compromising their eligibility for admission into competitive professional programs. Physical Therapy at the University of Connecticut is offered at the graduate level. (Consult the Graduate Catalog for more information regarding admission requirements for the University of Connecticut’s Doctorate in Physical Therapy Program.)

Pre-Veterinary Medicine. Students aspiring to become veterinarians generally major in either Animal Science or Pathobiology at the University of Connecticut. Animal Science includes the study of animal genetics, physiology, nutrition, medicine, products, and behavior. Pathobiology is the study of normal and abnormal biological processes in animals, including courses in anatomy, physiology, diseases, histology, virology, and microbiology. In both majors, the structured curriculum for pre-veterinary students includes courses required for veterinary college admission. Knowledgeable advisors, professional experience, networking opportunities, and – of course – students’ success in rigorous course requirements have resulted in a great track record for UConn graduates being admitted to veterinary schools and colleges.

Honors Programs. University honors programs are available to qualified students in the College. Please refer to the section of this Catalog designated “Honors Programs” for further information.

Exemptions and Substitutions. Students requesting an exemption from any University and/or College requirement, or a substitution for a course or requirement, should consult their advisors. Such exemptions or substitutions must be approved by the Department Head and the Associate Dean of the College and may also require approval from the Provost’s Office.

Field Trips and Transportation Costs. Many courses require off-campus field trips. Students should budget money for participation.

Graduate Programs. Most departments provide graduate programs for students interested in greater specialization beyond the baccalaureate. The study may lead to a Master of Science or Doctor of Philosophy degree. Students planning for a graduate program should secure a comprehensive background in the basic sciences. For further information see the announcement of the Graduate School.