



**EARLY COLLEGE
EXPERIENCE**

Course Guide

(*Pilot Program: contact office before applying)

See our website for Faculty Coordinators (ece.uconn.edu/about/faculty-coordinators)
and course costs (ece.uconn.edu/courses)

Agricultural and Resource Economics

ARE 2210: Essentials of Accounting and Business*

Three credits. *Offered Fall, Spring, or Full-year*

An analysis of basic business principle, fundamentals, and concepts for agribusiness entrepreneurs.

Eligibility Guidelines: Instructor consent is required.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn ECE Agricultural & Resources Economics courses can be met through the following options. Preferred applicants will have a master's degree or relevant graduate coursework in a closely related field (as judged by the UConn ARE Department).

Option 1: Instructors should have a Business BA/BS degree and hold a teaching certification endorsed for #010 Business, 7-12; or

Option 2: Instructors should have an agricultural education, natural resources, or a similar BA/BS degree and hold a CT teaching certification endorsed for either #040 Agriculture, PreK-12 or #041 Vocational Agriculture, 7-12; or

Option 3: Instructors should have an applied economics, resource economics, or a similar BA/BS degree w/relevant coursework; or

Option 4: Instructors hold a master's degree in Education and sufficient undergraduate or graduate courses in accounting, economics/resource economics, or business and/or relevant professional development activities.

For this course, the first year of certification is provisional, and the faculty course coordinator will mentor the UConn ECE Instructor and oversee implementation of the syllabus and instruction.

Allied Health Sciences

AH 1100: Introduction to Allied Health Professions

One credit. *Offered Fall or Spring.*

Overview of health professions, team approach to health care delivery.

Eligibility Guidelines: Instructor consent is required.

AH 2001: Medical Terminology

Two credits. *Offered Fall, Spring, or Full-year.*

Introduction and mastery of medical terminology through presentation of word roots, prefixes and suffixes. Disease processes, symptoms, diagnosis, and treatments that affect various body systems. Terminology associated with disease processes, symptoms, diagnosis, clinical procedures, laboratory tests, and treatments that affect various body systems.

Eligibility Guidelines: Student must have successfully completed or be enrolled concurrently in high school biology. Instructor consent is required.

AH 4092: EMT Training

Four credits. *Offered Full-year only.*

Instruction in basic life support skills, treatment of bleeding control and shock recognition, care for trauma victims, medical emergencies. Supervised practice experience and hands-on instruction of theory. Includes a 10-hour observation experience outside of classroom instruction. Meets the performance requirements of the National Registry of Emergency Medical Technicians (NREMT) certification exam. Students must first register for Hospital's EMT training program (separate Hospital program costs apply).

Eligibility Guidelines: Successful completion of high school biology and chemistry, and instructor consent, is required.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn ECE Allied Health courses can be met by either of the following options:

Option 1: Instructor should have a Health Science BS major or minor (however, applicants with a MS in a Health Science major will be considered); or

Option 2: Instructor will be certified to teach high school Chemistry or Biology. The first year of certification is provisional when the Department mentors the ECE instructor and oversees the implementation of the syllabus and instruction.

Other factors that contribute to certification include: prior teaching experience, work experiences in science/health related, and recommendations.

Certified instructors will work closely with the Allied Health Sciences Department to offer this class. Regular assessments and a final examination will come from the Allied Health Sciences Department. Additional assessments may be written by the ECE instructor and are approved by the Department.

Applicants for AH 2001 (Medical Terminology) should have documented coursework in the following areas: General Biology, General Chemistry, and Anatomy and Physiology (recommended).

American Studies

AMST 1201: Seminar in American Studies

Three credits. *Offered Fall, Spring, or Full-year.*

What is an American? A multi-disciplinary inquiry into the diversity of American societies and cultures.

Eligibility Guidelines: Successful completion of two years of high school history and two years of high school English are recommended.

Instructor Certification Requirements:

The minimum requirement for certification in American Studies are a Master's Degree in American Studies or a related Master's Degree from an accredited university and graduate-level training in both English and History. Applicants should have at least a Bachelor's Degree in American Studies; however, applicants with a Master's Degree in either English or History will be considered if in their coursework they took American Studies specific seminars, either in content or methods.

This course may be team taught between a History and English instructor, where each have at least bachelor and some graduate level training within their respective majors. Individual instructors with significant documented experience in teaching American Studies content may, under certain circumstances, also receive provisional certification within a mentoring program.

Animal Science

**Contact UConn ECE before applying as these courses runs in a limited number of Agriscience high schools only.*

ANSC 1602: Behavior and Training of Domestic Animals*

Three credits. *Offered Fall, Spring, or Full-year.*

Application of behavior of cattle, horses, sheep, goats, swine and poultry and companion animals 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 are required to have access to an animal that they will train throughout the semester; the Department of Animal Science will not necessarily provide animals for training.

Eligibility Guidelines: Student must be enrolled in an Agriscience program in Connecticut. Student must have completed Biology and the freshman year animal science course in high school.

ANSC 1676: Introduction to Companion Animals*

Three credits. *Offered Fall, Spring, or Full-year.*

Basic concepts of the nutrition, physiology, health, and management of companion animals.

Eligibility Guidelines: Student must be enrolled in an Agriscience program in Connecticut. Student must have completed Biology and the freshman year animal science course in high school or instructor consent is required.

ANSC 2251: Horse Science*

Three credits. *Offered as the last course in a four-semester sequence.*

Valuable to animal science majors. 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.

Eligibility Guidelines: Student must be enrolled in an Agriscience program in Connecticut. ANSC 2251 must be offered as the last course in a four-semester sequence (of animal science and horse science courses). ANSC 2251 is an advanced course and before enrollment, students must successfully complete Biology and least one year (or two semesters) of an introductory high school course specifically in horse science (not as a portion of another class).

Instructor Certification Requirements:

Option 1: Instructor should have an Animal Science BS major or minor; or Option 2: five years of experience teaching in an Agriscience high school. The first year of certification is provisional when the Department mentors the ECE instructor and oversees the implementation of the syllabus and instruction.

Certified instructors will work closely with the Animal Science Department to offer this class. Regular class exams are written by the ECE instructor and are approved by the Department. Final exam comes from the Animal Science Department at Storrs.

Anthropology

ANTH 1000: Peoples and Cultures of the World

Three credits. *Offered Fall, Spring, or Full-year.*

An introduction to the anthropological understanding of human society through ethnographic case studies of selected peoples and cultures, exploring the richness and variety of human life. Encourages students to learn about different cultures and to apply their knowledge to make sense of their own society.

Eligibility Guidelines: Successful completion of two years of high school or equivalent through grade advancement and instructor consent is required.

ANTH 1500: Great Discoveries in Archeology*

Three credits. *Offered Fall, Spring, or Full-year.*

Surveys of important discoveries in archeology spanning the whole of human prehistory across the globe. Current issues, methods, and techniques in the field of archeology.

Eligibility Guidelines: Successful completion of two years of high school or equivalent through grade advancement and instructor consent is required.

Instructor Certification Requirements:

The preferred qualifications to become a fully certified Anthropology instructor through UConn ECE is a Bachelor's degree in Anthropology and a Master's degree in Anthropology or History with evidence of a high-level of content mastery.

Instructors may also be certified Provisionally for their first year of teaching the course if they have earned a Bachelor's degree in Anthropology, History, or a closely related subject area and a Master's degree from an accredited University/College (e.g., Education or related academic discipline). Provisionally approved Instructors will also need to audit UConn's ANTH 1000 (online) or 1500 (online) course before their first year of teaching Anthropology courses through UConn ECE. Provisional certification may be updated to full certification status after the completion of the provisional year upon review of the Faculty and UConn ECE Program.

Applicants may be asked for a phone interview.

Art

ART 1030: Drawing I

Three credits. *Offered Fall, Spring, or Full-year.*

Fundamental principles of drawing based on observation.

Eligibility Guidelines: Successful completion of one full year of high school art instruction is recommended.

Instructor Certification Requirements:

The minimum degree requirement for teachers wishing to teach Early College Experience art courses is usually a Master of Fine Arts, although a candidate with a Master's in Education and appropriate background may be approved in exceptional situations. Preferred applicants should possess continuing creative activity external to their educational position. Examples include: participation in shows or activity with community art organizations; publications; competitions; art conference participation or presentations (rather than educational conferences); art residencies or fellowships; membership in professional arts societies; and/or grants or other funding for artistic projects. Samples of the applicant's personal and student work are a required piece of the application (15 – 20 pieces of instructor work; 15 – 20 pieces of student work).

Regarding student work, observed still life and perspective drawing examples are best for evaluation. Ideally, work is black and white and shows fundamentals of linear perspective, contour line, light and shadow, and an understanding of volume and composition. Student work may include observed figure or landscape, but the portfolio may not consist solely of these forms. Charcoal, graphite, and ink are preferable media. The use of color is not covered in ART 1030, Drawing I, and is not helpful when included in the student portfolio.

Samples must be submitted electronically. Acceptable formats include links provided to websites, or files shared from a Google Drive or Microsoft One Drive. JPG, TIFF, or PDF images are best. Multiple images may be compiled into one PDF portfolio as well, however each piece should be labeled and numbered as your own work or student work. Do not use PowerPoint or Keynote to compile work due to compatibility issues. If providing a website, please be clear regarding the specific examples that are to be reviewed.

Upon reviewing the application materials, the faculty coordinator in Art may wish to schedule an interview with the candidate or visit the teaching facilities. This on-site visit is a way to be introduced to the program and discuss possibilities for the course.

Asian and Asian American Studies

AAAS 2201: Introduction to Asian American Studies*

Three Credits. *Offered Fall, Spring, or Full-year.*

A multidisciplinary and interdisciplinary introduction to major themes in Asian American Studies. Concepts of identity and community, migration and labor histories, Asians and the law, representations of Asians in visual and popular culture, gender issues, interracial and interethnic relations, and human rights.

Eligibility Guidelines: Successful completion of at least one year of a high school literature/history/social studies course recommended.

Instructor Certification Requirements:

There are two routes to certification (existing credentials or curriculum lab participation) Existing credentials: possession of an Asian American Studies degree or course work a related humanities field such as History,

Literature, Political Science, and Sociology with Asian American content. Curriculum lab participation: teachers may gain certification through participation in the Asian and Asian American Studies Institute's Advanced Pedagogy Curriculum Lab. Other preferred experience includes: an interdisciplinary training or demonstrated practice of interdisciplinary teaching; a master's degree with graduate-level coursework relevant to Asian American studies or related content; participation/membership in local/national organizations related to work with Asian Americans. Instructors must provide compelling evidence that their proposed course is equivalent in rigor and scope to its equivalent at the University of Connecticut.

Biological Sciences

BIOL 1107: Principles of Biology I

Four credits. *Offered Fall, Spring, or Full-year. May be taken in either order.*

Designed to provide a foundation for more advanced courses in Biology and related sciences. Topics covered include molecular and cell biology, animal anatomy and physiology. Lab exercises include dissection of preserved animals.

Eligibility Guidelines: Student must have studied/been exposed to the fundamental basic principles of inorganic and organic chemistry in a course that in addition contains a laboratory component.

BIOL 1108: Principles of Biology II

Four credits. *Offered Fall, Spring, or Full-year. May be taken in either order.*

Designed to provide a foundation for more advanced courses in Biology and related sciences. Topics covered include evolution and population genetics, plant physiology and diversity, animal diversity and behavior, and ecology.

Eligibility Guidelines: Student must have studied/been exposed to the fundamental basic principles of inorganic and organic chemistry in a course that in addition contains a laboratory component.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn ECE biology courses will be a Masters degree in a subject area, such as cell biology or animal physiology, and have at a minimum 3 years of teaching experience at or above the high school level in the biological sciences. Additionally, the candidate should present on transcripts a diverse and deep breadth of course work and laboratory course work as both an undergraduate and as a graduate student and per degree post a 3.00 or higher Total Science GPA. Of further note, each degree must be of Science: B.S., and M.S.. Applicants will not be considered unless they also provide a detailed lecture and lab syllabus for their proposed Bio1107/1108 courses with their application. Certification also requires an interview with the ECE Biology Coordinator at the Storrs campus.

Applicants for Biology 1107/1108 should have documented successful completion of coursework in the following areas:

- General Biology
- General Chemistry
- Organic Chemistry

Additionally, Biology 1107 applicants should present successful completion of previous course work in the following:

- Genetics
- Microbiology
- Cell biology

- Animal Physiology, Comparative Anatomy or Human Physiology
- One semester of Biochemistry is recommended

Additionally, Biology 1108 applicants should present successful completion of previous course work in the following:

- Plant Physiology or Botany
- Ecology or Environmental/ Conservation Science
- Invertebrate and Vertebrate Zoology
- Evolution Theory
- Animal behavior is recommended

Other factors that contribute to certification include prior teaching experience.

Note: The University's Biology Department will provide exit exams.

Chemistry

CHEM 1127Q: General Chemistry I

Four credits. *Offered Fall only.*

Designed to provide a foundation for more advanced courses in chemistry. Atomic theory, laws and theories concerning the physical and chemical behavior of gases, liquids, solids, and solutions. Quantitative measurements illustrating the laws of chemical combination in the laboratory component.

Eligibility Guidelines: Successful completion of basic algebra is recommended. A student must pass CHEM 1127Q with a grade of a "C" or higher to continue on to CHEM 1128Q.

CHEM 1128Q: General Chemistry II

Four credits. *Offered Spring only.*

Equilibrium, thermodynamics, nuclear chemistry, and kinetics. Properties of some of the more familiar elements and their compounds. Equilibrium in solutions and reactions of the common cations and anions in the laboratory component.

Eligibility Guidelines: Successful completion of basic algebra is recommended. A student must pass CHEM 1127Q with a grade of a "C" or higher to continue on to CHEM 1128Q.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn Early College Experience chemistry courses is a Bachelor's of Science in Chemistry. A Master's degree in Chemistry is preferred. A candidate with a Master's in Education and a sufficiently strong and well balanced chemistry background may be also considered for certification. All candidates must have successfully completed:

- 2 semesters of general chemistry
- 2 semesters of organic chemistry
- 2 semesters of Analytical chemistry (1 semester lab, 1 semester lecture would be acceptable)
- 2 semesters of Inorganic chemistry (1 semester lab, 1 semester lecture would be acceptable)
- 2 semesters of Physical chemistry (1 semester lab, 1 semester lecture would be acceptable)

Note: Chemistry cannot be taught at a high school that runs on a block schedule. The University's Chemistry Department will provide examinations, laboratory assignments, and other resources to participating Instructors.

Chinese

CHIN 1114: Intermediate Chinese II

Four credits. *Offered Full-year only.*

Development of ability to communicate in Chinese, orally and in writing.

Eligibility Guidelines: Three or more years of high school Chinese, or instructor's consent, is required.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn Early College Experience Chinese courses is a Master's Degree in Chinese or a Master's Degree in Education with at least two years of Chinese teaching; however, a candidate with a Bachelor's Degree in Chinese who has completed Chinese coursework at the graduate-level or who has taught Chinese for at least six years may be considered. Candidates may be interviewed by the Chinese faculty coordinator before certification is granted.

Civil Engineering

CE 2110: Applied Mechanics I

Three credits. *Offered Fall, Spring, or Full-year.*

Fundamentals of statics using vector methods. Resolution and composition of forces; equilibrium of force systems; analysis of forces acting on structures and machines; centroids; moment of inertia.

Eligibility Guidelines: Successful completion or concurrent enrollment in MATH 1131Q or AP Calculus is required.

Instructor Certification Requirements:

The preferred degree requirements for teachers wishing to teach Engineering courses is a Master's degree in Engineering or a related field; however a Master's in Education with and appropriate engineering background may be considered. The minimum requirements for certification include a Bachelor's degree in Engineering and an Engineering/Physics background, or related experience. The instructor should show a comfort with calculus.

Classics and Ancient Mediterranean Studies

CAMS 1103: Classical Mythology

Three credits. *Offered Fall, Spring, or Full-year.*

Origin, nature, and function of myth in the literature and art of Greece and Rome and the re-interpretation of classical myth in modern art forms.

Eligibility Guidelines: Instructor consent is required.

CAMS 3101: Topics in Advanced Greek

Three credits. *Offered Fall, Spring, or Full-year.*

Not open for credit to students who have had three or more years of Greek in high school, except with Departmental consent. With a change in content, may be repeated for credit. Involves reading in Greek. Reading of Ancient Greek texts in the original.

Eligibility Guidelines: Successful completion of two semesters of accelerated elementary Greek or the equivalent is required.

CAMS 3102: Topics in Advanced Latin

Three credits. *Offered Fall, Spring, or Full-year.*

With a change in content, may be repeated for credit. Reading of Latin texts in the original.

Eligibility Guidelines: Successful completion of three or more years of high school Latin (Latin 1-3 at the high school level) or the equivalent is required.

Instructor Certification Requirements:

The minimum degree requirement for teachers wishing to teach Early College Experience classics courses is usually a Master's of Arts in Classics or a related field. A candidate with a Master's in Education may be considered if supported by equivalent classical coursework at the undergraduate and graduate-level.

Additional 1103 Requirements: The form of CAMS 1103 to be offered must conform closely to the form offered at UConn. Candidates who have not previously worked with Professor Travis may apply for temporary certification, with full certification pending completion of the online course and a follow-up certification interview. Candidates should understand that this process may take several months to a year and that full certification must be completed before instructors may apply for permission to list the course in the following year. Applications for this course must be submitted a year in advance of the planned year the course will be taught in the high school.

Communications

COMM 1000: The Process of Communications*

Three credits. *Offered Fall, Spring, or Full-year.*

A study of modern communication theories and principles useful in understanding how people affect and are affected by others through communication.

Eligibility Guidelines: Successful completion of at least one year of a high school social studies course, two years of English/Language or instructor consent is recommended.

COMM 1100: Principles of Public Speaking*

Three credits. *Offered Fall, Spring, or Full-year.*

Theory and performance in public speaking: methods for organizing presentation and delivery skills, overcoming anxiety of speaking in public; audience analysis; maximizing message impact; professional presentation skills; evidence; listening and speech evaluation.

Eligibility Guidelines: Successful completion of at least one year of a high school social studies course, two years of English/Language or instructor consent is recommended.

Instructor Certification Requirements:

The preferred degree requirement for instructors wishing to teach UConn Communication courses through Early College Experience is a Master's degree in Communication and three years of Communication teaching experience or related teaching experience at the high school level.

The minimum degree requirement for instructors seeking Communication certification is a Bachelor's degree in Communication or related social science field (such as, but not limited to Psychology, Sociology, Political Science) and a conferred Master's degree in Education or a related field. Successful completion of three graduate level Communication courses from an accredited college or University, and three years of Communication teaching experience or related teaching experience at the high school level is also required.

All newly approved Instructors will be certified on a first year provisional basis and required to audit UConn's Comm 1000 and/or 1100 course(s) before their first year of teaching. Pending recommendation by the Faculty Coordinator, certification can be updated from provisional to full status at the end of the academic year.

Digital Media & Design

DMD 1002: Foundations in Digital Media II

Three credits (\$150). *Offered Fall, Spring, or Full-year.*

Introduction to the fundamentals of storytelling using a variety of practical digital media applications.

Eligibility Guidelines:

- *Students must have the ability to access Adobe CC = computer + account, or another professional raster-based image editing suite, and professional-level video editing suite*
- *Students must possess digital literacy skills and can understand to set up a project and organize documents*

DMD 1101: Design Lab I

Three credits (\$150). *Offered Fall, Spring, or Full-year.*

Exploration of the creation, manipulation, and reception of digital images through project-based work using image-editing software. Through lecture, discussion, projects, and critique, students will develop, refine, and evaluate digital images and understand their artistic, social, and ethical ramifications.

Eligibility Guidelines:

- *Students must have the ability to access Adobe CC = computer + account, or another professional raster-based image editing suite*
- *Students must possess digital literacy skills and can understand to set up a project and organize documents*
- *Students must have basic drawing skills*

DMD 1102: Design Lab II

Three credits (\$150). *Offered Fall, Spring, or Full-year.*

Theory, principles, and practices of digital screen-based visual communication. Through a multidisciplinary perspective involving art, design, art history, and media studies, students will address how culture visualizes screen-based communication through both image and type.

Eligibility Guidelines:

- *Students must have the ability to access Adobe CC = computer + account, or another professional raster-based image editing suite, and professional-level video editing suite*
- *Students must possess digital literacy skills and can understand to set up a project and organize documents*

DMD 2210: Film and Video Editing I

Three credits (\$150). *Offered Fall, Spring, or Full-year.*

Introduction to digital editing, project management, working with sound, and time-based storytelling.

Eligibility Guidelines:

- *Students must have the ability to access Adobe CC = computer + account, or another professional-level video editing suite*
 - *Students must possess digital literacy skills and can understand to set up a project and organize documents*
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DMD 2500: Introduction to Game Design

Three credits (\$150). *Offered Fall, Spring, or Full-year.*

Introduction to the principles of game design and development. History of the industry, story, and game mechanics.

Eligibility Guidelines:

- *Students must have the ability to access a professional game development tool such as Unity, Unreal, Godot, or Construct3*
 - *Students must possess digital literacy skills and can understand to set up a project and organize documents*
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Instructor Certification Requirements:

The minimum degree requirement for teachers wishing to teach Early College Experience Digital Media Design courses is usually a BA or BFA in Education, Design/Art/Film (or Game Development, Computer Science, Digital Media/Art for DMD 2500). As part of the application process, applicants will be shared a link to a google drive folder to upload portfolio work completed by the instructor and examples of student work. Additional course-specific certification requirements are listed below.

DMD 1002 Applicants must possess a basic understanding of storytelling principles, narrative arcs, and how to utilize storytelling techniques in visual media. In addition, a qualified applicant must have a basic knowledge of design principles, visual aesthetics, photoshop, and adobe premiere (or similar editing software).

Instructor Work:

- At least one example of previsualization techniques such as storyboarding, mood boarding, and pitches
- At least three examples of effective storytelling using audio, photo, or video that adheres to the principles of design

Current Exemplary Student Work:

- Two items each. Storyboards, Pitches, Photography, Video, and Audio

DMD 1101 Applicants must possess a basic understanding of visual communication using elements and principles of design. In addition, a qualified applicant must demonstrate knowledge of standard typographic, photographic, and cinematic composition terms and principles, as well as and Photoshop (taught) Procreate or Gimp (optional).

Instructor Work:

- 5-10 examples of digital raster projects that demonstrate an understanding of color, value, light, silhouette, and discuss how the content in this work reflects a specific theme

Current Exemplary Student Work:

- 5-10 raster-based drawings and evidence of a critique-based practice

DMD 1102 Applicants must possess a basic understanding of visual communication principles and design techniques. In addition, a qualified applicant must have a basic knowledge of human-centered design and its relationship to typographic adjustments such as contrast and readability, and: Illustrator, After Effects, and XD (or similar editing software)

Instructor Work:

- 5-10 examples of digital raster projects that demonstrate an understanding of color, value, light, silhouette, and discuss how the content in this work reflects a specific theme

Current Exemplary Student Work:

- 5-10 vector-based drawings and evidence of a critique-based practice

DMD 2210 Applicants must possess a basic understanding of storytelling principles and narrative arcs, and how to utilize storytelling techniques in visual media. In addition, a qualified applicant must have a basic understanding of design principles and visual aesthetics as well as photoshop and adobe premiere (or similar editing software).

Instructor Work:

- At least one example of previsualization techniques such as storyboarding, mood boarding, and pitches
- At least three examples of effective storytelling using video that adheres to the design principles of film

Current Exemplary Student Work:

- Two items each. Storyboards, Scripts, Three to five short films

DMD 2500 Applicants must possess a basic understanding of game design principles and implement them in a visual scripting or programming language. In addition, a qualified applicant must have a basic knowledge of either 2D or 3D graphics in run-time environments and a professional off-the-shelf game engine.

Instructor Work:

- One to three examples of games or apps implemented through a coding language such as C# or Python or visual scripting. (Include code samples or screenshots of your scripts)
- At least two examples of digital or analog projects such as card games or custom Role-Playing Game campaigns that adhere to the principles of game design and storytelling

Current Exemplary Student Work:

- 3-5 games that adhere to the principles of game design, 2-4 code samples (visual scripting screenshots are acceptable)

Economics

ECON 1000: Essentials of Economics

Three credits. *Offered Fall, Spring, or Full-year.*

A general introduction to micro- and macroeconomics. Economic concepts to be taught include opportunity costs, demand and supply, incentives, comparative advantage, inflation and employment policies, balance of international payments, and economic growth.

Eligibility Guidelines: Successful completion or simultaneous enrollment in Intermediate Algebra/Algebra II and Geometry are required. Not open to students who are currently enrolled in or who have passed ECON 1201 or 1202.

ECON 1201: Principles of Microeconomics

Three credits. *Offered Fall, Spring, or Full-year. May be taken before or after ECON 1202.*

How the invisible hand of the market functions through the economic decisions of firms and individuals. How prices, wages and profits are determined, resources are allocated and income is distributed. Topical subjects (e.g., energy policy and health care).

Eligibility Guidelines: Successful completion or simultaneous enrollment in Intermediate Algebra/Algebra II and Geometry are required.

ECON 1202: Principles of Macroeconomics

Three credits. *Offered Fall, Spring, or Full-year. May be taken before or after ECON 1201.*

The organization and function of the economic system as a total unit. Economic decisions, institutions, and policies that determine levels and rates of growth of production, employment, and prices. Topical subjects (e.g., government budget deficits and current interest-rate policy).

Eligibility Guidelines: Successful completion or simultaneous enrollment in Intermediate Algebra/Algebra II and Geometry are required.

Instructor Certification Requirements:

There are two faculty ranks associated with UConn ECE Economics—Instructor and Preceptor. The minimum requirement for teachers wishing to become a UConn ECE Economics Instructor is a Master’s Degree in Economics or equivalent experience (as judged by the UConn Economics Department).

The minimum requirement for teachers wishing to become a UConn ECE Economics Preceptor is the potential for teaching Economics which includes a Bachelor’s degree in Economics and/or equivalent experience in the field. The role of ECE Economics instructor and preceptor differ in the levels of independence determined by the University's faculty coordinator in Economics. Preceptors may be encouraged to seek full certification by completing additional coursework in Economics.

Education

Educational Curriculum and Instruction

EDCI 1100: If You Love It, Teach It*

Three credits. *Offered Fall, Spring, or Full-year.*

Studies of K-12 teaching, learning, and schooling in the United States; historical, philosophical, and social foundations of education as well as self-study to reimagine educational futures.

Eligibility Guidelines: Successful completion of three years of high school English is recommended.

Instructor Certification Requirements:

The minimum degree requirements for teachers wishing to teach EPSY 1100 courses is a Master’s degree in Special Education or Sixth Year certificate in special education and experience as a special education teacher. This course has a clear institutional approach with requires adherence to the UConn syllabus (See sample). In your cover letter, please speak to your background, experience, and your ability to implement the UConn curriculum at the high school.

Educational Leadership

EDLR 1162: Health and Education in Urban Communities*

One credit. *Offered Fall, Spring, or Full-year.*

As an introductory course, EDLR 1162 explores the historical and social forces that shape health and education in urban communities, specifically in Connecticut. Topics of study will include poverty, culture, and identity and how these phenomena affect children's health, nutrition, schooling and opportunities for success. Through readings, films, discussion, reflection and service-learning opportunities, class members analyze policies, norms and beliefs in our society. Students will be challenged to consider how these trends may lead us to a more just society and how these may perpetuate injustice.

Eligibility Guidelines: Instructor consent is required.

Instructor Certification Requirements:

The minimum degree requirement for teachers wishing to teach Early College Experience EDLR 1162: Health and Education in Urban Communities is typically a Master's degree in a related field. A Master's in an education or health related field of study would be ideal, but other degrees will be considered. The first year of certification is provisional, and the faculty course coordinator will mentor the ECE instructor and oversee implementation of the syllabus, instruction and service learning component of the course. Following the provisional period, certified instructors can gain full certification and work closely with the faculty course coordinator to offer this course. All applications must include a completed *EDLR 1162 Service Site Info Form*.

EDLR 2001: Contemporary Issues in Sport

Three credits (\$150). *Offered Fall, Spring, or Full-year.*

Socio-cultural, economic, political, and other related issues in sport. Sport as a social institution, the impact of sport in American culture, and the impact of American culture on sport. Sport at the youth, intercollegiate, professional, and international levels; how sport at these levels is experienced differently by individuals, communities, organizations, and society. Issues in sport relative to gender, race (ethnicity), differing physical and intellectual ability, sexual identity, and gender identity.

Eligibility Guidelines: Instructor consent is required.

Instructor Certification Requirements:

The minimum degree requirement for teachers wishing to teach EDLR 2001: Contemporary Social Issues in Sport is typically a Bachelor's degree in Sport Management or a related field, such as kinesiology, education, health, sociology, political science. Preferred applicants will have a Master's degree with relevant graduate work to sport management, education, health, sociology, political science. For this course, the first year of certification is provisional, and the faculty course coordinator will mentor the ECE instructor and oversee implementation of the syllabus, instruction and service learning component of the course.

In addition to the ECE application materials, instructors interested in teaching EDLR 2001: Contemporary Social Issues in Sport should write an essay that is no longer than 3 pages that responds to the following question:

- Select a contemporary issue in sport that has pushed you to examine your beliefs about sport and society. Explain the impact that this issue has had on you, and how you would incorporate your learning from this contemporary issue into your ECE course.
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Educational Psychology

EPSY 1100: Introduction to Special Education

Three credits. *Offered Fall, Spring, or Full-year.*

Special education services in American education, including various exceptionalities and the roles of professionals.

Eligibility Guidelines: Successful completion of three years of high school English and instructor recommendation.

Instructor Certification Requirements:

The minimum degree requirements for teachers wishing to teach Education courses is a Masters of Education. Instructors wishing to teach EPSY 1100 must have a graduate concentration in special education. This course has a clear institutional approach with requires adherence to the UConn syllabus (See sample). In your cover letter, please speak to your background, experience, and your ability to implement the UConn curriculum at the high school.

English

ENGL 1004: Introduction to Academic Writing

Four credits. *Offered Fall, Spring, or Full-year.*

Development of the reading and writing skills essential to university work. Students placed in ENGL 1004 must pass the course before electing ENGL 1007.

Eligibility Guidelines: Successful completion of two years of high school English is required.

ENGL 1007: Seminar and Studio in Academic Writing and Multimodal Composition

Four credits. *Offered Fall, Spring, or Full-Year*

College composition through multiple forms of literacy, including rhetorical, digital, and information literacies necessary for twenty-first-century contexts. The development of creatively intellectual inquiries through sustained engagement with texts, ideas, and problems. Emphasis on transfer of writing and rhetorical skills to academic and daily life. Students design a digital portfolio that curates creations and skills-based micro-credentials they earn in coursework.

Eligibility Guidelines: Successful completion of two years of high school English is required. Students placed in ENGL 1004 must pass that class before enrolling in ENGL 1007.

ENGL 3082: Writing Center Practicum

Three credits. Offered Fall, Spring, or Full-year.

Introduction to Writing Center pedagogy, theory and research methods. Intended primarily for students staffing UConn ECE Partner School Writing Centers. Students taking this course will be assigned a grade of S (satisfactory) or U (unsatisfactory).

Eligibility Guidelines: Successful completion of two years of high school English is required. Students should either be enrolled, planning to enroll, or have successfully completed ENGL 1007.

Instructor Certification Requirements:

The preferred preparation for teaching Early College Experience English courses is a Master's of Arts degree in English with at least some coursework in rhetoric and composition (especially courses directly related to the teaching of writing). The minimum degree requirement for teachers wishing to teach Early College Experience English courses is usually a Master's of Arts degree in English; however, a candidate with Master's in Education and at least two graduate-level English classes (one of which is in rhetoric and composition) may be considered.

ENGL 1004 is designed to prepare students not yet qualified to take the required academic writing seminar (ENGL 1010 or 1011) but who would benefit from a preparatory course that carries college credit. Please contact the UConn ECE Program Office before considering offering the course as it is not open without approval from our office.

Instructors looking to qualify for ENGL 3082: Writing Center Practicum must be eligible to teach ENGL 1007, or are currently certified to teach ENGL 1007 through UConn ECE and the partner school must currently have, or is planning to launch, a high school writing center. Instructors must attend UConn's Secondary School Writing Centers Conference at least every other year, and preferably each year.

Earth Sciences

ERTH 1000E: The Human Epoch: Living in the Anthropocene*

Three credits. *Offered Fall, Spring, or Full-year.*

Introduction to geoscience focusing on human activities as agents of geologic change. Examines human planetary processes in our current epoch, the Anthropocene. Provides a novel frame for contemporary environmental issues such as climate change, sustainability, mass extinctions, land use, and waste disposal. Interaction between earthly processes and human affairs.

Eligibility Guidelines: Successful completion of basic earth science coursework.

ERTH 1051: Earth's Dynamic Environment*

Three credits. *Offered Fall, Spring, or Full-year.*

Origin and history of planet Earth, emphasizing how rock, air, water, and life interact at different scales to produce the earth's crust, landforms, life systems, natural resources, catastrophes, and climatic regimes. Provides a scientific context for human-induced global change.

Eligibility Guidelines: Successful completion of basic earth science coursework. Proficiency in basic algebra and geometry is required.

ERTH 2800: Our Evolving Atmosphere*

Three credits. *Offered Fall, Spring, or Full-year.*

An introduction to atmospheric science, including a history of the field, features of the atmosphere, weather forecasting, and a geologic history of climate change.

Eligibility Guidelines: Successful completion of basic earth science coursework. Proficiency in basic algebra and geometry is required.

Instructor Certification Requirements:

The minimum requirements for instructors wishing to teach UConn Early College Experience Earth Science courses are typically a Master of Science in geology, geoscience, environmental science, or a related field and 2 years high school science teaching experience. Applicants also will be considered if they have a Master of Education with a concentration in one of the Earth Sciences, a Bachelor's of Science in the natural sciences with college level Earth Science, and 4 years high school science teaching experience. Applicants should provide a proposed course syllabus that follows the UConn schedule for EARTH 1000E, EARTH 1051, and EARTH 2800 as listed in the sample syllabus closely to ensure course comparability.

French

FREN: 3250: Global Culture I

Three credits. *Offered Fall or Full-year.*

Intense study of oral French. Learning of oral techniques of communication in conjunction with weekly topics of conversation associated with various francophone cultures. Rigorous and active oral practice through dialogues, interviews, round tables, and oral reports.

Eligibility Guidelines: Successful completion of three full years of high school French, or instructor consent, is required.

FREN 3268: Grammar and Composition

Three credits. *Offered Spring or Full-year.*

Advanced study of French texts and extensive written practice in a variety of forms ranging from compositions, essays, summaries, and film reviews.

Eligibility Guidelines: Successful completion of three full years of high school French, or instructor consent, is required.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn ECE French courses is a Master's of Arts degree in French; however, a candidate with Master's in Education with a sufficiently strong French background may be considered. A candidate with a strong French background has either taken graduate courses in French or has been educated (K through 12) in a Francophone country. Candidates will be interviewed by the French faculty coordinator before certification is granted.

German

GERM 3233: Building Language Skills through Culture I

Three credits. *Offered Fall, Spring, or Full-year.*

Development of oral and written skills using a content-based methodology and drawing on texts that deal with issues in contemporary culture of German-speaking countries. Emphasis on acquisition of a sophisticated understanding of cultural differences while building vocabulary, improving accuracy, and increasing facility in self-expression and communication.

Eligibility Guidelines: Successful completion of three or more years of high school German, or instructor consent, is required.

GERM 3255: Studies in 20th Century German Literature

Three credits. *Offered Fall, Spring, or Full-year. Prerequisite: GERM 3233.*

Study of a cohesive group of texts that mark the period. Attention will be given to the relevant socio-historical context and to the visual and performing arts. Taught in German.

Eligibility Guidelines: Successful completion of GERM 3233 is required.

Instructor Certification Requirements:

The preferred requirement for instructors wishing to teach UConn ECE German courses is a Bachelor's Degree in German/German Studies and a Master's Degree in German/German Studies. If the instructor has a Bachelor's Degree in German and a Master's Degree in Education or another equivalent field (e.g., International Studies), the instructor needs to complete at least two scholarly courses in the study of German/German Studies. The courses should be in a Graduate German Studies Department from an accredited university in the United States.

History

HIST 1300: Western Traditions Before 1500

Three credits. *Offered Fall, Spring, or Full-year.*

An analysis of the traditions and changes which have shaped Western political institutions, economic systems, social structures, and culture in ancient and medieval times.

Eligibility Guidelines: Successful completion of at least one year of a high school history/social studies course recommended.

HIST 1400: Modern Western Traditions

Three credits. *Offered Fall, Spring, or Full-year.*

History of political institutions, economic systems, social structures, and cultures in the modern Western world.

Eligibility Guidelines: Successful completion of at least one year of a high school history/social studies course recommended.

Instructor Certification Requirements for HIST 1300 and 1400:

The minimum degree requirement for instructors wishing to teach ECE History courses is a B.A. in History with at least four graduate courses (12 credits, half the number required for a Master's degree) in European history.

Teachers interested in obtaining History certification are asked to submit the following materials in addition to the certification application:

1. A detailed syllabus for the course being taught: this should include a 'statement of purpose' for the course, a list of the texts being used, and a schedule of the lectures and readings for each class meeting. Be sure to indicate the 'title' of the lecture (e.g., "Heresy and Dissent in the 13th Century"). Discussion topics, films, etc. should also be noted in the schedule, as well as notice of any websites that students are required to use.
 2. The syllabus must include a full listing of all primary source texts assigned for the course, along with an indication of how they will be used, e.g., as a basis for a careful in-class close reading, as a focus for class lecture and/or discussion, as material for written assignments, etc. The single most important feature that distinguishes an ECE History course from regular high school courses is an emphasis on reading, discussing, and interpreting primary sources.
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HIST 1501: United States History to 1877

Three credits. *Offered Fall, Spring, or Full-year.*

Surveys political, economic, social, and cultural developments in American history through the Civil War and Reconstruction.

Eligibility Guidelines: Successful completion of at least one year of a high school history course recommended.

HIST 1502: United States History Since 1877

Three credits. *Offered Fall, Spring, or Full-year.*

Surveys political, economic, social, and cultural developments in American history from 1877 to the present.

Eligibility Guidelines: Successful completion of at least one year of a high school history course recommended.

Instructor Certification Requirements for HIST 1501 and 1502:

The minimum degree requirement for instructors wishing to teach U.S. History courses is a B.A. in History with at least four graduate courses (12 credits, half the number required for a Master's degree) in U.S. history. Applicants must have completed at least one graduate-level course in historical methodology or historiography with a grade of a B or better.

Teachers interested in obtaining U.S. History certification must submit a draft syllabus for each course (1501 and/or 1502) that includes:

1. A 'statement of purpose' for the course, a list of the texts being used, and a schedule of the lectures and readings for each class meeting. Be sure to indicate the 'title' of the lecture (e.g., "Jeffersonian America"). Discussion topics, films, etc. should also be noted in the schedule, as well as notice of any websites that students are required to use.
2. A full listing of all primary source texts assigned for the course, along with an indication of how they will be used, e.g., as a basis for a careful in-class close reading, as a focus for class lecture and/or discussion, as material for written assignments, etc. The single most important feature that distinguishes an ECE

U.S. History course from regular high school courses in an emphasis on reading, discussing and interpreting primary sources.

Human Development & Family Sciences

HDFS 1070: Individual & Family Development

Three credits. *Offered Fall, Spring or Full-year.*

Human development throughout the life span, with emphasis upon the family as a primary context.

Eligibility Guidelines: Successful completion of two years of English/Language Arts, one year of social studies, and one year of science, or instructor consent, is required.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach Early College Experience Family Studies class, HDFS 1070: Individual and Family Development, is a Master's Degree in Education. It is suggested that the undergraduate Bachelor's Degree be in the area of Family and Consumer Sciences Education (045, CT Home Economics) or Human Development and Family Sciences with three to five years teaching experience at the secondary level. Applicants must have completed coursework in both Human Development and Family Studies before certification can be considered.

Human Rights

HRTS 1007: Introduction to Human Rights

Three credits. *Offered Fall, Spring, or Full-year.*

Exploration of central human rights institutions, selected human rights themes and political controversies, and key political challenges of contemporary human rights advocacy.

Eligibility Guidelines: Successful completion of two years of high school social studies courses, or consent of the instructor, is recommended.

HRTS 2200: Introduction to Genocide Studies*

Three credits. *Offered Fall, Spring, or Full-year.*

Interdisciplinary introduction to the study of genocide as an historical, legal, social, political, and conceptual phenomenon, including response, prevention, and commemoration efforts.

Eligibility Guidelines: Successful completion of three years of high school social studies courses (to include world history and/or world geography), or consent of the instructor, is recommended.

Instructor Certification Requirements:

HRTS 1007: The minimum requirement for certification in Human Rights is a Bachelor's degree in Human Rights, or a related field such as Global Studies, Political Science, or History. Preferred applicants will have an interdisciplinary and global academic background, a master's degree with graduate-level coursework relevant to human rights, and/or engaging in global humanitarian programs, international organizations or other related

work throughout their careers. Instructors must provide compelling evidence that their proposed course is equivalent in rigor and scope to its equivalent at the University of Connecticut.

HRTS 2200: The minimum requirement for certification in Genocide Studies is a Bachelor's degree in Human Rights or Genocide Studies, or a related field such as Global Studies, Political Science, or History. Preferred applicants will have an interdisciplinary and global academic background, a master's degree with graduate-level coursework relevant to genocide studies, and/or engaging in global humanitarian programs, international organizations or other related work throughout their careers. Instructors must provide compelling evidence that their proposed course is equivalent in rigor and scope to its equivalent at the University of Connecticut.

Italian Literature and Cultural Studies

ILCS 3239: Composition & Conversation I

Three credits. *Offered Fall, Spring, or Full-year. Prerequisite: ILCS 1148 or equivalent.*

Practice in written and oral composition. Syntax study.

Eligibility Guidelines: Successful completion of the equivalent of four Italian language courses (two courses at the Elementary level & two at the Intermediate level) and instructor consent. A student must pass ILCS 3239 with a grade of a "C" or higher to continue on to ILCS 3240.

ILCS 3240: Composition & Conversation II

Three credits. *Offered Fall, Spring, or Full-year. Prerequisite: ILCS 3239 or equivalent.*

Further practice in written and oral composition. Treatment of the finer points in syntax.

Eligibility Guidelines: Successful completion of the equivalent of four Italian language courses (two courses at the Elementary level & two at the Intermediate level) and instructor consent. A student must pass ILCS 3239 with a grade of a "C" or higher to continue on to ILCS 3240.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach Early College Experience Italian courses is a Master's in Italian; however, a Master's in Education and appropriate Italian background may be considered.

Latino and Latin American Studies

LLAS 1190: Perspectives on Latin America

Three credits. *Offered Fall, Spring, or Full-year.*

Multidisciplinary exploration of the historical development of such aspects of Latin America and the Caribbean as colonization and nation formation; geography and the environment; immigration and migration; race, ethnicity, and gender in society, politics, economy, and culture.

Eligibility Guidelines: Successful completion of two years of high school history and one year of high school Spanish are recommended.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach UConn ECE LLAS courses is a Master's of Arts degree in Latin American Studies, or in Anthropology History, Political Science or Spanish with a focus on the study of Latin American and the Caribbean; however, a candidate with Master's in Education with a sufficiently strong LLAS background may be considered. A candidate with a strong LLAS background has either taken graduate courses in LLAS or has been educated (K - 12 and potentially beyond) in a Latin American country.

Marine Science

MARN 1001E: The Sea Around Us

Three credits. *Offered Fall, Spring, or Full-year.*

The relationship of humans with the marine environment. Exploitation of marine resources, development and use of the coastal zone, and the impact of technology on marine ecosystems.

Eligibility Guidelines: Successful completion of at least one year of a high school science course or instructor consent is recommended.

MARN 1002E: Introduction to Oceanography

Three credits. *Offered Fall, Spring, or Full-year.*

Processes governing the geology, circulation, chemistry, and biological productivity of the world's oceans. Emphasis is placed on the interactions and interrelationships between physical, chemical, biological, and geological processes that contribute to both the stability and the variability of the marine environment.

Eligibility Guidelines: Successful completion of two years of high school lab science are recommended. Students who pass MARN 1002 are not eligible for MARN 1003. Students who pass MARN 1003 are not eligible for MARN 1002.

MARN 1003E: Introduction to Oceanography with Laboratory

Four credits. *Offered Fall, Spring, or Full-year.*

Processes governing the geology, circulation, chemistry, and biological productivity of the world's oceans. Emphasis on the interactions and interrelationships of physical, chemical, biological and geological processes that contribute to both the stability and the variability of the marine environment. Laboratory experiments, hands-on exercises, and field observations including required cruise on research vessel.

Eligibility Guidelines: Successful completion of two years of high school lab science are recommended. Not open to students who have passed MARN 1002.

Instructor Certification Requirements:

The minimum requirements for instructors wishing to teach UConn Early College Experience Marine Sciences (MARN 1002/1003E) are a Master of Science in Oceanography, Marine Sciences, Marine Biology, or a related field and 2 years high school teaching experience in marine science/marine biology and advanced science courses. Applicants will be considered for Marine Sciences (MARN 1002/1003E and/or MARN 1001E) if they have a Master of Education with a concentration in science or environmental science, a Bachelor of Science in the natural sciences and 4 years high school teaching experience in marine science/marine biology and advanced science courses.

Maritime Studies

MAST 1200: Introduction to Maritime Culture

Three credits. *Offered Fall, Spring, or Full-year.*

A study of history and literature to understand the international maritime culture that links peoples, nations, economies, environments, and cultural aesthetics.

Eligibility Guidelines: Successful completion of two years of high school history and two years of high school English are recommended.

Instructor Certification Requirements:

The minimum requirements for certification in Maritime Studies is an instructor who has completed graduate-level coursework in both English and History. At a minimum, applicants should have a Bachelor's Degree in Maritime Studies; however, applicants with a Master's Degree in either English or History will be considered. This course may be team taught between a History and an English instructor where each have at least bachelor and some graduate-level training within their respective majors.

Mathematics

MATH 1030Q: Elementary Discrete Mathematics

Three credits. *Offered Fall or Spring.*

Topics chosen from discrete mathematics. May include counting and probability, sequences, graph theory, deductive reasoning, the axiomatic method and finite geometries, number systems, voting methods, apportionment methods, mathematics of finance, number theory.

Eligibility Guidelines: Successful completion of one year of pre-calculus is recommended. Not open for credit to students who have passed any math course other than MATH 1011, 1020, 1030, 1040, 1060 or 1070. UConn ECE Math 1030Q cannot be taken concurrent with or after UConn ECE Math 1131Q or 1132Q.

MATH 1131Q: Calculus I

Four credits. *Offered Fall only.*

Limits, continuity, differentiation, antidifferentiation, definite integral, with applications to the physical sciences and engineering sciences. Suitable for students with some prior calculus experience. Substitutes for MATH 1151 as a requirement.

Eligibility Guidelines: Successful completion of one year of pre-calculus is required. A student must pass MATH 1131Q with a grade of a "C" or higher to continue on to MATH 1132Q. To receive credit for the MATH 1131Q – MATH 1132Q sequence a student must pass MATH 1131Q in the Fall with a C or higher and continue to MATH 1132Q in the following Spring. The sequence must be completed in one academic year. Students cannot receive credit for MATH 1131 and MATH 1151.

MATH 1132Q: Calculus II

Four credits. *Offered Spring only.*

Transcendental functions, formal integration, polar coordinates, infinite sequences and series, vector algebra and geometry, with applications to the physical sciences and engineering. Substitutes for MATH 1122 as a requirement.

Eligibility Guidelines: Successful completion of one year of pre-calculus is required. A student must pass MATH 1131Q with a grade of a "C" or higher to continue on to MATH 1132Q. To receive credit for the MATH 1131Q – MATH 1132Q sequence a student must pass MATH 1131Q in the Fall with a C or higher and continue to MATH 1132Q in the following Spring. The sequence must be completed in one academic year. Prerequisite: MATH 1131Q in the immediately preceding semester.

MATH 2210Q: Multivariable Calculus

Four credits. Offered Fall only.

Two- and three-dimensional vector algebra, calculus of functions of several variables, vector differential calculus, line and surface integrals.

Eligibility Guidelines: Successful completion of MATH 1132Q with a grade of a "C" or better. MATH 2110Q can only be taken the following fall semester after completion of 1132Q.

Instructor Certification Requirements:

MATH 1030Q, MATH 1131Q, & MATH 1132Q: The minimum degree requirement for instructors wishing to teach UConn ECE mathematics courses is typically a Master's degree in Mathematics. In exceptional cases, a strong Bachelor's degree in Math with evidence that the candidate is enrolled in a program to earn a Master's degree may be considered. A candidate with a Master's in Education may also be considered if coupled with a strong Bachelor's degree in Mathematics. Interviews will be conducted before certification is granted. The Math Department will not certify candidates that have earned a degree completely through online coursework or who do not have a degree in Math.

****The transcript must include at least one course on the theory of calculus (i. e., Real Analysis or Theoretical Advanced Calculus) with a grade of B or better.****

Note: Core Questions are given to Instructors to include in final exams by the University's Mathematics Department.

MATH 2110Q: in addition to MATH 1131Q and 1132Q should have successfully taught each course at least twice. Additionally, to be certified to teach MATH 2110Q, instructors should possess a very strong background as a math major and have successfully completed at least four upper-level, proof-based courses (Real Analysis I & II, Abstract Algebra I & II, Abstract Linear Algebra, Complex Analysis, Differential Geometry, Number Theory, etc.) with a grade of a B or higher in each course. Exceptions may be made in extenuating circumstances at the discretion of the faculty coordinator.

Music

MUSI 1001: Music Appreciation

Three credits. Offered Fall, Spring, or Full-year.

An approach toward intelligent listening, illustrated by recordings.

Eligibility Guidelines: No previous training required.

MUSI 1003: Popular Music and Diversity in American Society

Three credits. *Offered Fall, Spring, or Full-year.*

An introduction to popular music and diversity in America: jazz, blues, Top-40 pop, rock, hip-hop, and other genres. Musicians and their music studied in the context of twentieth-century and contemporary American society, emphasizing issues of race, gender, class, and resistance.

Eligibility Guidelines: No previous training required.

MUSI 1011: Fundamentals/Ear Training I

Three credits. *Offered Fall, Spring, or Full-year.*

Basic skills in note reading, rhythm, meter, pitch symbols, scales, key-signatures, intervals, triads, sight-singing, and dictation. No previous training is required.

Eligibility Guidelines: Completion of at least one year of preparatory work in music courses at the high school level is recommended.

MUSI 1012: Fundamentals/Ear Training II

Three credits. *Offered Fall, Spring, or Full-year.*

Further development of skills in music reading, sight-singing, and dictation.

Eligibility Guidelines: A student must pass MUSI 1011 with a grade of a "C" or higher to continue on to MUSI 1012.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach Early College Experience Music courses is usually a Master's of Arts degree in Music; however, a candidate with Master's in Education and sufficiently strong music background may be considered.

Natural Resources and the Environment

NRE 1000E: Environmental Science

Three credits. *Offered Full-year only.*

An introduction to basic concepts and areas of environmental concern and how these problems can be effectively addressed. Topics include human population; ecological principles; conservation of biological resources; biodiversity; croplands, rangelands, forestlands; soil and water conservation; pollution and water management; and wildlife and fisheries conservation.

Eligibility Guidelines: Successful completion of two years of high school science is recommended.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach Early College Experience Environmental Science courses is a Master's Degree in one of the environmental science fields (e.g. environmental biology, natural resources, chemistry, earth science, geography, economics) or Education and experience in education and study in environmental science.

Philosophy

PHIL 1101: Problems of Philosophy

Three credits. *Offered Fall, Spring, or Full-year.*

Topics may include skepticism, proofs of God, knowledge of the external world, induction, free-will, the problem of evil, miracles, liberty and equality.

Eligibility Guidelines: Instructor consent is required.

PHIL 1108E: Environmental Philosophy

Three credits. *Offered Fall, Spring, or Full-year.*

Philosophical issues raised by humanity's interaction with its environment. Topics may include ethical and policy ramifications of the use of non-human animals for food, medicine, and scientific inquiry; whether the natural world has a status calling for its protection or preservation; obligations to future generations; environmental justice; and movements such as deep ecology, ecofeminism, and social ecology.

Eligibility Guidelines: Instructor consent is required.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach Early College Experience Philosophy courses is a B.A. in Philosophy or a closely related field (such as Political Science with an emphasis on Political Theory, or Religious Studies with an emphasis on Ethics), and a M.A. in Philosophy (or closely related field).

Physics

PHYS 1201Q: General Physics I

Four credits. *Offered Fall, Spring, or Full-year.*

A non-calculus based course introducing the laws of force and motion applied to mechanical phenomena. Concepts such as work, mechanical energy, linear and angular momentum, and energy conservation are explained. The laboratory offers fundamental training in precise measurements.

Eligibility Guidelines: Successful completion of high school chemistry is recommended.

PHYS 1202Q: General Physics II

Four credits. *Offered Fall, Spring, or Full-year.*

A non-calculus based course introducing the principles governing electromagnetic phenomena, including electromagnetic radiation and waves and electric circuits. The laboratory offers fundamental training in precise measurements.

Eligibility Guidelines: Successful completion of pre-calculus or introductory calculus is recommended. A student must pass PHYS 1201Q with a grade of a "C" or higher to continue on to PHYS 1202Q.

PHYS 1401Q: General Physics with Calculus I

Four credits. *Offered Fall, Spring, or Full-year.*

Quantitative study of the basic facts and principles of physics with an emphasis on mechanical phenomena. Concepts such as work, mechanical energy, linear and angular momentum, and energy conservation are explained. The laboratory offers fundamental training in physical measurements. Recommended for non-engineering students who desire to have a calculus-based physics sequence. It is also recommended for science majors whom a one year introductory physics course is adequate.

Eligibility Guidelines: Successful completion of pre-calculus or introductory calculus is recommended. Students who matriculate to UConn may take PHYS 1401Q for not more than two credits, with the permission of the instructor, if students received credits for PHYS 1201Q.

PHYS 1402Q: General Physics with Calculus II

Four credits. *Offered Fall, Spring, or Full-year.*

Quantitative study of the basic facts and principles of physics with an emphasis on electromagnetic phenomena, including electromagnetic radiation and waves and electric circuits. The laboratory offers fundamental training in physical measurements. Recommended for non-engineering students who desire to have a calculus-based physics sequence. It is also recommended for science majors for whom a one year introductory physics course is adequate.

Eligibility Guidelines: Successful completion of pre-calculus or introductory calculus is recommended. A student must pass PHYS1401Q with a grade of a "C" or higher to continue on to PHYS 1402Q. May be taken for not more than two credits with the permission of the instructor, by students who have passed PHYS1202Q.

Instructor Certification Requirements:

The minimum degree requirement for teachers wishing to teach UConn ECE physics courses is a Bachelor's degree in physics with at least 3.0 GPA in the basic calculus level physics course, an overall 2.5 GPA for all physics courses on the transcript, plus two years teaching experience at the high school level. Faculty should have a calculus background. Candidates with a Master's degree or Ph.D. in physics will be considered without the two-year teaching experience requirement.

Political Science

POLS 1002: Introduction to Political Theory

Three credits. *Offered Fall, Spring, or Full-year.*

Major themes of political theory such as justice, obligation, and equality, and their relevance to contemporary political concerns.

Eligibility Guidelines: One year of high school history or high school civics, or instructor consent, is recommended.

POLS 1202: Introduction to Comparative Politics

Three credits. *Offered Fall, Spring, or Full-year.*

A survey of institutions, politics, and ideologies in democratic and non-democratic states.

Eligibility Guidelines: One year of high school history or high school civics, or instructor consent, is recommended.

POLS 1402: Introduction to International Relations

Three credits. *Offered Fall, Spring, or Full-year.*

The nature and problems of international politics.

Eligibility Guidelines: One year of high school history or high school civics, or instructor consent, is recommended.

POLS 1602: Introduction to American Politics

Three credits. *Offered Fall, Spring, or Full-year.*

Analysis of the organization and operation of the American political system.

Eligibility Guidelines: One year of high school history or high school civics, or instructor consent, is recommended.

Instructor Certification Requirements:

The minimum degree requirement for instructors wishing to teach Early College Experience political science courses is a Master's of Arts degree in political science or a law degree. Applicants may also be certified to teach one of the four introductory courses if they complete three political science graduate classes in the designated field. These three classes must be approved by the Department of Political Science and UConn ECE before enrollment.

Sociology

SOCI 1001: Introduction to Sociology

Three credits. *Offered Fall, Spring, or Full-year.*

Modern society and its social organization, institutions, communities, groups, and social roles: the socialization of individuals, family, gender, race and ethnicity, religion, social class, crime and deviance, population, cities, political economy, and social change.

Eligibility Guidelines: Successful completion of at least one year of a high school history or social studies course or instructor consent is recommended.

Instructor Certification Requirements:

1. M.A. in Sociology

-OR-

2. B.A. in Sociology or a related social science field (such as, but not limited to, Political Science, Human Rights, or Anthropology), and three graduate courses in Sociology. Successful candidates need to have earned a Master's degree (education or other department). One graduate course in sociology may be replaced with comparable experience depending on undergraduate major, teaching experience or related qualifications.

Spanish

SPAN 3177: Composition & Reading for Spanish Speakers

Three credits. *Offered Fall, Spring, or Full-year.*

Grammar, written composition, and readings for speakers of Spanish with little or no formal training. Emphasis is on Puerto Rican literature.

Eligibility Guidelines: Instructor consent.

SPAN 3178: Intermediate Spanish Composition

Three credits. *Offered Fall, Spring, or Full-year.*

This course provides a thorough review of grammar and methodical practice in composition leading to command of practical idioms and vocabulary.

Eligibility Guidelines: Successful completion of three or more years of high school Spanish or instructor consent is recommended.

SPAN 3179: Spanish Conversation: Cultural Topics

Three credits. *Offered Fall, Spring, or Full-year.*

Recommended preparation: SPAN 3178. In-depth development of speaking skills through cultural readings, group discussions and oral presentations on selected topics concerning the Spanish-speaking world.

Eligibility Guidelines: Successful completion of three or more years of high school Spanish, successful completion of SPAN 3178, or instructor consent is recommended.

Instructor Certification Requirements:

The minimum requirement for instructors wishing to teach Early College Experience Spanish courses is a Bachelor's Degree in Spanish and a Master's Degree in Spanish. If the instructor has a Bachelor's Degree in Spanish and a Master's Degree in Education, the instructor needs to complete at least two scholarly courses in the study of Spanish and/ or Spanish American Literature. The courses should be in a Graduate Spanish Department from an accredited university in the United States and approved by the UConn ECE Faculty Coordinators for Spanish and the UConn ECE program before enrollment.

Statistics

STAT 1100Q: Elementary Concepts of Statistics

Four credits. *Offered Fall, Spring, or Full-year.*

Standard and nonparametric approaches to statistical analysis; exploratory data analysis, elementary probability, sampling distributions, estimation and hypothesis testing, one- and two-sample procedures, regression and correlation. Learning to do statistical analysis on a personal computer is an integral part of the course.

Eligibility Guidelines: Successful completion of Intermediate Algebra/Algebra II is required.

Instructor Certification Requirements:

The preferred requirement for instructors wishing to teach UConn ECE statistics courses is a Master's of Science degree in Statistics, or a Master's in a related area with appropriate level undergraduate statistics background and/or undergraduate or graduate courses at least two levels above Statistics 1100QC. A candidate with a Master's in Education and an appropriate statistics background may be considered. Reasonable courses at the undergraduate-level in applied statistics are STAT 2215Q or STAT 3115Q, or equivalent. Reasonable courses at the undergraduate-level in statistical methods are STAT 3025Q or STAT 3375Q or STAT 3445, or equivalent. A grade of B or better in these courses will be required. UConn's course catalog for statistics can be found online at [UConn Catalog](#) for comparison.

**Applicants must provide a detailed list and course descriptions of their completed statistics coursework for review. This list of courses should identify the equivalence to the UConn courses mentioned above.

Sustainable Plant and Soil Systems

SPSS 1100: Turfgrass Management*

Three credits. *Offered Fall, Spring, or Full-year.*

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.

Eligibility Guidelines: Successful completion of one year of high school biology recommended.

SPSS 1110: Fundamentals of Horticulture

Three credits. *Offered Fall, Spring, or Full-year.*

Science and practice of horticultural plant propagation and culture. Basic concepts of plant structure, growth and function. Integrated pest management. Impact of new technology. Horticulture and the environment.

Eligibility Guidelines: Successful completion of one year of high school biology recommended.

SPSS 1150: Agricultural Technology and Society

Three credits. *Offered Fall, Spring, or Full-year.*

Development of agricultural systems and technologies and their influence on societies. Topics include plant and animal domestication, food and industrial crops and centers of production, environmental issues, and agricultural ethics.

Eligibility Guidelines: Successful completion of one year of high school biology recommended.

SPSS 2120: Environmental Soil Science

Three credits. *Offered Fall, Spring, or Full-year.*

Introduction to the physical, chemical and biological properties of soils. The relationship between soils and the growth of higher plants. Impact of soils on environmental quality.

Eligibility Guidelines: Successful completion of one year of high school chemistry recommended.

SPSS 2520: Floral Art

Two credits. *Offered Fall, Spring, or Full-Year.*

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.

Eligibility Guidelines: Successful completion of one year of high school chemistry recommended.

SPSS 3230: Biotechnology- Science, Application, Impact, Perception

Three credits. *Offered Fall, Spring, or Full-year.*

Scientific, legal, and ethical aspects of Biotechnology application in agriculture, health medicine, forensics, and the environment.

Eligibility Guidelines: None.

SPSS 3245: Plant Breeding and Biotechnology

Three credits. *Offered Fall, Spring, or Full-year.*

Principles and applications, economic, social and environmental impacts, advantages, potentials and limitations of major traditional and modern plant breeding technologies including crossing/hybridization, mutagenesis, genetic engineering and genome editing.

Eligibility Guidelines: A student must pass SPSS 3230 with a grade of a "C" or higher to continue on to SPSS 3245.

SPSS 3530: Advanced Floral Design

Two credits. *Offered Fall, Spring, or Full-year. Prerequisite: SPSS 2520.*

In-depth study of post-harvest requirements for specialized floral crops. Exposure to novel floral materials with an emphasis on special events and wedding designs. Mass marketing, retail price structuring and mass-production concepts are covered.

Eligibility Guidelines: A student must pass SPSS 2520 with a grade of a "C" or higher to continue on to SPSS 3530.

Instructor Certification Requirements:

The minimum requirements for instructors wishing to become certified to teach SPSS courses is a Bachelor's and Master's degrees in plant science or a related discipline and three years teaching experience. A Master's degree in Education may be acceptable if applicants completed sufficient undergraduate and graduate courses in plant science and related disciplines. Access to a lab, and other resources are required to support applied learning opportunities of the courses. Other factors that will be considered include instructor's experience in applied aspects of plant science and participation in professional development activities. Teachers must submit a detailed lecture and lab syllabus with their application for certification.