

The syllabus, which acts as a contract, presents an overview of the course description, goals and objectives; lists required materials; describes the schedule, assignments, and assessments; clarifies policies (including grading criteria) and expectations.

SPSS 1150 / HORT 1150
Agriculture Technology and Society



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Shepaug Valley Agriscience Academy
Fall 2021 and Spring 2022

This course is given in cooperation
with UConn Early College Experience
www.ece.uconn.edu

This course will consider the origins of agriculture, ethics and technology from the perspective of botanical systems. Current events of interest in agriculture will include genetically modified organisms, organic farming and sustainable agriculture. Domestication of living species, development of tools and technologies, and influences of agriculture on societal development will be a focus of inquiry, as well as how the scientific method is applied to researching agricultural history. The influence of agricultural technology on the environment, risk assessment, and effects of agricultural technology ‘revolutions’ on society will be reviewed. Case studies will include how specific plants and issues of agriculture influenced society throughout history. Focus will be on the doctor/healer/shaman/botanist-wine, distilled spirits, medicinal plants and psychoactive plants.

Course goals: Students will be able to make accurate observations and apply them to real-life situations. They will develop scientific judgement and botanical handling techniques with a variety of species. Authentic task-based projects will include an in-person or virtual visit to a farm or nursery. Students will present reflections and analysis as a one to two page paper and /or slideshow.

Learning Objectives: Students completing the course will be able to

- Understand how agricultural technologies were developed; focusing on the technological, societal, and environmental factors underlying the development of plant cultivation and integrally related animal husbandry.
- Gain an appreciation of the scientific method; how is knowledge about agriculture, impact of technology on society and the environment, and technological advancements generated and evaluated.
- Understand how agriculture influenced diversity of society and cultural development as well as how society and cultural development influenced agriculture throughout history.
- Be exposed to controversies and ethical issues regarding agriculture-related technologies; e.g., the benefits as well as negative impacts of monoculture, mechanization, biotechnology, ‘organic’ agriculture, the ‘Green Revolution’, the use of psychotropic plant-derived drugs in various cultures, as well as the spice trade will be discussed.

Required Textbook and Materials

1. *Guns, Germs and Steel*
By Jared Diamond: ISBN: 978-0393317558

Assessment/Grading Policy

Formative assessments carry a weight of 20% toward the marking period grade. Examples:

- Homework
- Classroom assignments
- Attendance and attitude
- Entrance or exit tickets

Interim assessments carry a weight of 20% toward the marking period grade. Examples:

- Collaborative reports
- Research checks
- Term papers
- Presentations

Summative assessments carry a weight of 60% toward the marking period grade. Examples:

- Quizzes
- Performance tasks
- Midterm exams
- Final cumulative exam

Students will prepare one term paper and one 10 minute presentation per semester. Students have the option of writing two papers if they choose not to make a presentation, for a total of three papers. Topics must be approved in advance by the instructor and a one page outline must be submitted and approved before commencing. Topics and sources may include (but are not restricted to):

The Botany of Desire (Michael Pollan)- apple, tulip, potato, marijuana. Omnivore's Dilemma (Pollan)- Food sources for animals, Industrial agriculture, King corn, Feedlot verses pasture, Mycelium Running (Paul Stamets)- Mycelium as nature's intent, Mycorestoration, medicinal mushrooms, growing mushrooms, mushrooms and the environment. Activist food movements. Cheese making. The Little Ice Age and Agric. in Europe and/or US. Psychedelics and non-US and European culture. Ethnic foods and culture. Veganism. The ethics of eating animals. Biodynamic Farming. Politics of organic agriculture. Food folk tales: fact and fiction.

You may notice that your high school grade and UConn grade differ. It is possible that two different grades can be awarded for the same course. Your high school grade is determined by Shepaug Valley High School and the Agriscience Academy. Your UConn course grade is determined by the grading rubric set by the University department. Your UConn grade will not contain any Agriscience-specific assessments (Supervised Agricultural Experience, National FFA Organization).

Letter grade conversion:

A $\geq$ 92	C 72-75.9
A- 89-91.9	C- 69-71.9
B+ 86-88.9	D+ 66-68.9
B 82-85.9	D 62-65.9
B- 79-81.9	D- 59-61.9
C+ 76-78.9	F <59

Methods of Instruction

This course will utilize a flexible combination of in-person didactic, online and hands-on instruction. Learning exercises will be collaborative and individual. The care and maintenance of Shepaug plants and related facilities will be an integral part of the course. The course assignments and lesson outlines will be posted on Google Classroom. Additional tools and resources will include (but are not limited to): Kahoot!, Flipgrid, Newsela, YouTube, Kami and Region 12 approved websites. Feedback and revision opportunities will be offered for formative and interim assignments facilitating a dynamic learning process.

Classroom Expectations

1. Active Participation, Community respect, and Inquiry are expected at all times both in and outside the classroom, including online.
2. Students must come to class prepared each day with materials, writing utensils, agenda, and a charged Chromebook.
3. Students should arrive to class on time. Late arrival will result in progressive discipline beginning with warnings, lunch detentions, then after school detentions. If attending class virtually, students are expected to log in 5 minutes prior to class.
4. Students should not use cell phones or smartwatches in class unless directed to do so by the teacher. Phones are put away during class time unless used with a teacher directive.
5. Students are required to maintain a clean working space. It is the student's responsibility to clean up their materials each day and put them away in their proper stored locations.
6. Proper use and care of materials must be followed. Intentional destruction of materials, equipment or furniture will result in students being responsible for the cost of replacement.
7. Clear instructions will be given for the use of hazardous/dangerous materials and equipment. In cases of misuse of these materials, students will no longer be permitted to use the material. An alternative assignment may be given by the teacher.

8. The safe care and handling of live plant materials is a privilege, not a right. The highest standards of safe plant care and facilities operation are priorities of this classroom.

Homework Policy

Submission of Late Work: Students must make every effort to submit work on time. Late work impacts the entire class since teachers often cannot discuss answers/ideas until all work is submitted. In addition, students who submit late work have additional time and opportunity that has not been afforded to other students.

As a general rule, late work will be penalized 5% for each day late, up to five school days. The acceptance of late homework is at the teacher's discretion. Since teachers often review the homework answers in class, it is not possible to accept homework after answers are given. Teachers will share their homework policy with each class.

Please note: Late arrival or early dismissal is not an acceptable excuse for late submission of a pre-assigned project/assignment. If a student is in the building or online on a specific day, he/she has an obligation to submit a pre-assigned project/assignment to the appropriate teacher(s). In addition, if a student reports to the nurse instead of a class, he/she has an obligation to submit any pre-assigned project/assignment to the appropriate teacher. If a student arrives late to school, leaves early, or reports to the nurse instead of a class, he/she must submit pre-assigned projects/assignments to the appropriate teacher(s) or the late work policy will apply.

Academic Honesty

Please refer to the student handbook online at <http://www.region12.org> for school policy. A note on projects and homework: do the work yourself. In addition to the important matter of academic integrity, there is no benefit from copying work. The homework prepares you for the assessments, and you need to think through the questions on the homework for yourself in order to be prepared for the assessments. Collaborative vs. individual assignments will be clearly indicated. In this ECE course, Shepaug students are also expected to follow UCONN's Code of Conduct. To access the full document follow this link: <http://www.audit.uconn.edu/doc/codeofconduct.pdf>

Student Handbook

Please refer to the student handbook online at <http://www.region-12.org> for school policy. Students are expected to abide by the handbook rules expectations at all times.

UConn's Student Code, the Policy Against Discrimination, Harassment and Related Interpersonal Violence, and other university policies may be found here, <https://provost.uconn.edu/faculty-and-staff-resources/syllabi-references/>.

Extra help: We will be more than happy to help students with any difficulties they may be having with the material we will be studying. All they need to do is ask! Please make arrangements to connect with us during Advisory or before or after school, in person or by phone or video conference, and please use your school email account for all communications.

Learning Sequence and Topics

Semester 1	Topics
	UNIT 1 - Origins of Agriculture
	Ancient Crops
	Domestication of Plants
	Agricultural tools
	Hybrids
	UNIT 2 - Plants in Cultural History
	Botanicals in religion
	Botanicals in art
	Flower arrangement
	Holland tulip history and production
	Bonsai
	<i>Quarter #1 summative test date TBD</i>
	UNIT 3 - Consumable Plants: food
	Viniculture
	Viticulture
	Fungiculture
	Apiculture
	Forages and crops
	<i>Quarter #2 summative test date TBD</i>
	<i>Class presentations date TBD</i>
Semester 2	UNIT 4 - Consumable Plants: medicinal
	Phytochemistry
	Medicinal botanicals
	Distilled botanicals
	Fermented botanicals
	Wildcrafting
	UNIT 5 - Ethics and Technology
	Aquaculture
	Plant Oils
	Plants and Fuel Systems
	Plant Rights
	Plant-based diets
	<i>Quarter #3 summative test date TBD</i>
	UNIT 6 - Dynamic ecosystems
	Intensive agricultural practices
	Genetically modified (GMO) plants
	Organic horticulture and agriculture
	Plant Pestilences
	Diversity
	<i>Class presentations date TBD</i>
	CUMULATIVE FINAL (summative for all four quarters)

Disclaimer: This syllabus may be revised at any time.