

Center for Advanced Technical Studies

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<http://www.lexrich5.org/CATS.cfm>

Agricultural Education Department Course Syllabus

Agricultural Systems Technology I & II 2019– 2020 Academic School Year

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Course Description

The Agricultural Systems Technology I course is designed to expand upon information and material introduced in the Agricultural and Biosystems Science and Biosystems Mechanization courses. Content focuses on biological and engineering sciences important to bioprocessing and biofuels industry, including microbial concepts, reactor design and laboratory techniques inherent. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and laboratory safety are included as a part of the instructional program. Each student is expected to design and participate in a supervised agricultural experience.

Typical learning activities include hands-on learning experiences including performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; participating in FFA activities.

Credit

1 Unit

Objective

Given the necessary equipment, supplies, and facilities, the student, upon completion of the prescribed number of instructional hours, will be able to successfully complete the listed core competencies.

Throughout the semester there will be many Agriculture related topics covered. The main outline for the course is as follows:

UNIT A: Introduction to Agriculture Technology

UNIT B: Inquiry and Team-Based Projects

UNIT C: Biotechnology

Unit D. Precision Agriculture

Unit E. Climate Impacts on Agriculture

- Unit F. Biodiversity In Agricultural Ecosystems**
- Unit G. Bioprocessing and Bioenvironmental Lab**
- Unit H. Ecosystem Health- Air, Water and Soil Quality**

**** Participation in daily classroom and laboratory activities is a major part of your grade for this course. ALWAYS be prepared to work outside in various weather and climate conditions and possibly get yourself and your clothes dirty. Space is provided in the classroom for you to leave a change of clothes and/or shoes.*

Assessments and Grading

A student's course grade is calculated by a total points system based on the total points offered for an assignment, exercise or assessment against the total points earned by the student for said assignment, exercise or assessment.

For instance: A quiz may be worth a total of 10 points. The quiz consists of 10 questions with each being worth 1 point. A student answers 8 out of the 10 questions correctly, thus earning 8 points or 80% success for the assessment. If the total number of points offered through assignments and assessments for the quarter is 100, including the 10-point quiz, then the total points offered for the quiz make up 10% of the quarterly grade. Again, the points earned on the quiz make up a total of 8 points or 80% (a letter grade of a B). This is only an example.

Semester average

1 st nine weeks average	40%
2 nd nine weeks average	40%
Final exam	20%

Test/ Projects: A unit test will be given upon the completion of each major unit. As time permits, we will do our best to have an in-class review for unit tests. In-class reviews are meant to make students aware of all material that is "fair game" on the test; the reviews are not meant to be the students' only study time for the test. Refer to the Center's make-up policy if a test is missed. Because of the nature of the class, the format for tests may be written, oral, performance of a task, or any other format deemed appropriate by the instructor. Projects will be described in class as the semester progresses, and students will be provided with a grading rubric for each project.

Quizzes/Classwork/Employability Grade:

Quizzes will be announced in class in an effort to give students an opportunity to properly prepare. Refer to the Center's make-up policy if a quiz is missed.

Participation in activities is a must! There is no better way to learn than for you to try it for yourself. Active participation is also an easy way for you to do well in this class. Always try your best, get involved, and have a positive attitude! Resist the temptation to be lazy. Maintaining your notebook, following dress code, being alert and attentive in class (ie, not sleeping, talking, & texting), bringing materials to class, and participating in small-group work will help you maintain a high participation grade

SAE project: A supervised agricultural experience, or SAE, is an integral part of agricultural education in partnership with classroom instruction and FFA participation. Our third unit in this class is an “SAE unit” in which each student select an SAE project, create goals, write a plan, and finally implement their SAE project idea. Students should discuss project ideas with parents and mentors to make sure the project and goals are practical and goals are practical and attainable. Parent or guardian assent is a mandatory part of the SAE because the process will most likely require guidance, help, money, time, transportation, or other resources from parents and/or mentors in the community. Each student will be required to turn in an SAE report at the end of the semester (report grading rubric to be distributed during SAE unit). SAE projects are an exciting, hands-on, and self-directed way to LEARN!!! All first ag class students will be required to run a scientific experiment and create a report and presentation as his or her first SAE.

Final Exam: Every student will take a final exam that will assess knowledge of all of the units covered during the semester of instruction. The final exam is worth 20% of the final grade for this class, so keeping up with class material and saving past assignments, quizzes, and unit tests is essential.

Attendance/Make-Up Work

The Center for Advanced Technical Studies offers **NO** attendance recovery. After the 3rd and 5th unexcused absence parents will be notified by the school. After the 10th unexcused absence, a student will not be able to receive credit for the course

Due to the nature of this course and the extreme emphasis placed on personal participation daily attendance to class is critical, however, if for any reason you must be absent from class you are responsible for all work missed. Within a reasonable amount of days of your return to school, you must arrange with the instructor an appropriate time to complete missed work. In the case of long term projects a reduction of points may be imposed even if you are absent.

The National FFA Organization:

The Lexington-Richland 5 FFA program has much to offer any student. Joining the FFA is optional, but it is my expectation that every student will join the FFA, and become involved in our activities. The FFA is designed to help reinforce what is learned in the classroom. Not only is it an educational tool, but a social opportunity, as well as teaching students practical knowledge that will be useful no matter what career field they plan to pursue. FFA dues are \$10.00 and this includes chapter, state, and national dues as well as a FFA magazine subscription. Members will also get to participate in our local, state, and national competitions, and senior members will be eligible to apply for over \$3 million worth of national FFA scholarships. It's my hope with your help and involve we can grow the CATS FFA into on the best programs SC has to offer.

Discipline Plan

Students of this department are required to follow the discipline plan of the Center for advanced technical studies as well as all policies set forth by Lexington Richland 5 School District Code of Student Conduct. Students will be disciplined for infractions of these policies are recommended by the school's administration. Below is a list of rules specifically designed for this department and following the rules is a list of consequences that students will face when these policies are violated.

Cell phones: Once students enter the classroom/lab students should have cell phones off and put up. Since students will be given Ipad minis, students have no reason to use the cellphones in class. If a student needs to contact his or her parent/ guardian they can go through the front office.

Rules

1. Safety glasses must be worn AT ALL TIMES while operating equipment.
2. No equipment may be operated by a student until he/she has passed the safety operations test with 100% accuracy.
3. No open toed shoes or loose fitting clothing.
4. No tobacco products.
5. No food or drink in classroom (except water with a screw on cap)
6. No horseplay, rough housing, fighting, profanity, vulgar language, etc. will be tolerated.
7. Clean up after yourself
8. Should equipment be damaged due to **INCORRECT** use, the student will be held financially responsible for all repair costs.
9. Be respectful of yourself and others at all times.

Consequences

1st Offense ----- Verbal Warning

2nd Offense ----- Student/Teacher conference and parent contact

3rd Offense ----- Office referral

PLEASE SIGN AND RETURN LAST PAGE TO MR. SOX

I have read the course syllabus, including the discipline plan. I understand the information given and the expectations for this course and agree to abide by the policies stated. I understand that if at any time I have concerns about my child's performance, I can contact Mr. Sox at the school or by email.

Students Name _____

Signature _____ Date _____

Parent Name _____

Signature _____ Date _____

Parents Information

Home Phone _____

Work Phone _____

Email Address _____