

AREC 505 Agricultural Production Economics

(currently substituting for AREC 605 Agricultural Production and Cost Analysis in degree requirements)

Spring 2019, 3 credits

Location and Meeting Times

Tues & Thurs 2:00–3:15pm, Room 101 Walnut

Contact Information & Office Hours

Instructor: Gregory Graff, Professor, Agricultural and Resource Economics
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Office hours: Wednesdays 1:00-3:00

Instructor: Amanda Countryman, Associate Professor, Agricultural and Resource Economics
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Office hours: Tuesdays and Thursdays 1:30-2:30

Course Overview

This course covers empirical application and analysis of production and cost issues in the agricultural and natural resource sectors.

All students in the AREC-MS program are required to complete a capstone sequence in either Agricultural Production and Marketing or Environmental and Natural Resource Economics. This course (AREC 605) is the capstone course that provides the highest level of training within the master's program in technical competence and problem solving relevant to the economics of agricultural production. Further, this course contributes significantly to refining student skills in communication at the highest levels within the master's program

Course Learning Outcomes

Upon successful completion of this course students will be able to:

1. Apply fundamental production and cost models to applied agricultural economics topics and problems
2. Estimate and interpret the results of production, cost, and profit functions

3. Identify the appropriate production and/or supply model to tackle new empirical problems and issues
4. Conceptualize production behavior of producers and firms
5. Apply fundamental trade, equilibrium, and impact assessment models to applied agricultural economics topics and problems
6. Estimate and interpret economy-wide production, trade, and impact assessment models
7. Present the results of a research replication project to an audience of peers

Course Pre-Requisites

Pre-requisites for this course include AREC 506 and AREC 535/ECON 535, or their equivalent.

Schedule of topics:

Weeks 1-8

- Production, cost, and profit functions
- Technology adoption and diffusion
- Production under risk and uncertainty

Weeks 9-16

- Economic impact assessment (e.g. IMPLAN)
- Trade and equilibrium analysis (e.g., CGE)

Course Materials

Textbook: Debertin, D.L. *Agricultural Production Economics*. Second Edition. 2012: University of Kentucky UKnowledge. Available free online at https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1000&context=agecon_textbooks

Supplemental readings: See the Canvas course site for updates throughout the semester.

Software: We will make use of statistical packages such as STATA and R.

Grading Policies

Course grades will be based on several areas of evaluation, including problem sets, participation, and examinations. These components will be weighted as follows:

Problem sets:	40%
Journal article discussions:	20% (weekly article discussions)
Review paper assignment	10%
Replication assignment:	10%
<u>Exams:</u>	<u>20% (two in-class exams)</u>
Total:	100%

Accommodation

If you are a student who will need accommodations in this class due to a disability or chronic health condition, please make an appointment with me to discuss your individual needs. Any accommodation must be discussed in a timely manner prior to implementation. A verifying accommodation letter from **Resources for Disabled Students** is required before any accommodation is provided. The **Student Disability Center** (<https://disabilitycenter.colostate.edu/>) is in TILT, room 121, or 970-491-6385.

Academic Integrity

Academic misconduct (see examples below) undermines the educational experience at Colorado State University, lowers morale by engendering a skeptical attitude about the quality of education, and negatively affects the relationship between students and faculty/instructors. Faculty/Instructors are expected to use reasonably practical means of preventing and detecting academic misconduct. Any student found responsible for having engaged in academic misconduct will be subject to academic penalty and/or University disciplinary action. Students are encouraged to positively impact the academic integrity culture of CSU by reporting incidents of academic misconduct.

Examples of academic misconduct include (but are not limited to):

1. **Cheating** – Cheating includes using unauthorized sources of information and providing or receiving unauthorized assistance on any form of academic work or engaging in any behavior specifically prohibited by the instructor in the course syllabus or class presentation.
2. **Plagiarism** – Plagiarism includes the copying of language, structure, images, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment, and is related only to work submitted for credit. Also included is the failure to cite sources properly; sources must always be appropriately referenced, whether the source is printed, electronic or spoken.
3. **Unauthorized Possession or Disposition of Academic Materials** – Unauthorized possession or disposition of academic materials includes the unauthorized selling or purchasing of examinations, term papers, or other academic work; stealing another student's work; and using information from or possessing exams that an instructor did not authorize for release to students.
4. **Falsification** – Falsification encompasses any untruth, verbal or written, in one's academic work.
5. **Facilitation of any act of Academic Misconduct** – Facilitation of any act of academic misconduct includes knowingly assisting another to commit an act of misconduct.

Need Help?

CSU is a community that cares for you. If you are struggling with drugs or alcohol and/or experiencing depression, anxiety, overwhelming stress or thoughts of hurting yourself or others please know there is help available. **Counseling Services** has trained professionals who can help. Contact 970-491-6053 or go to <http://health.colostate.edu>. If you are concerned about a friend or peer, tell someone at by calling 970-491-1350 to discuss your concerns with a professional who can discreetly connect the distressed individual with the proper resources (<http://supportandsafety.colostate.edu/tellsomeone>). **Rams take care of Rams**. Reach out and ask for help if you or someone you know is having a difficult time.

Sexual Assault and Violence Elimination

CSU's Student Sexual Harassment and Violence policy, following national guidance from the **Office of Civil Rights**, requires that professors follow CSU policy as a "mandatory reporter" of any personal disclosure of sexual harassment, abuse, and/or violence related experiences or incidents shared with the professor in person, via email, and/or in classroom papers or homework exercises. These disclosures include but are not limited to reports of personal relational abuse, relational/domestic violence, and stalking. While professors are often able to help students locate appropriate channels of assistance on campus (e.g., see the **CSU Health Network** link below), disclosure by the student to the professor requires that the professor inform appropriate CSU channels to help ensure that the student's safety and welfare is being addressed, even if the student requests that the disclosure not be shared.

For counseling support and assistance, please see the **CSU Health Network**, which includes a variety of counseling services that can be accessed at: <http://www.health.colostate.edu/>. And, the **Sexual Assault Victim Assistance Team** is a confidential resource for students that does not have a reporting requirement and that can be of great help to students who have experienced sexual assault. The web address is <http://www.wgac.colostate.edu/support>

Principles of Community

The Principles of Community support the Colorado State University mission and vision of access, research, teaching, service and engagement. A collaborative, and vibrant community is a foundation for learning, critical inquiry, and discovery. Therefore, each member of the CSU community has a responsibility to uphold these principles when engaging with one another and acting on behalf of the University

Inclusion – We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents, and contributions.

Integrity – We are accountable for our actions and will act ethically and honestly in all our interactions.

Respect – We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

Service – We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Social Justice – We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.