INSTRUCTOR & COURSE INFORMATION

Instructor: Alexandra Hill
Email: Alexandra.e.hill@colostate.edu
Phone: (970) 491-3577

Communication Policy: Responses to emails will be provided within 24 hours during normal business hours (i.e. Monday-Friday 8am-5pm). Please do not expect prompt email responses in late evenings or on weekends.
Office Hours: (Virtual) Monday & Wednesday, 1:30pm – 2:30pm (and by appointment)
Office Hours Link: https://meet.google.com/ser-gmad-kdo

Course Meeting Days and Times: M-W-F, 11am – 11:50am
Course Meeting Location: Animal Sciences, Room 131

COVID-19 INFORMATION

Important information for Students: All students should fill out a student-specific symptom checker each day before coming to class (https://covidrecovery.colostate.edu/daily-symptom-checker/). In addition, please utilize the symptom checker to report symptoms, if you have a positive test, or exposed to a known COVID contact. If you know or believe you have been exposed or are symptomatic, it is important for the health of yourself and others that you report it through this checker. You will not be in trouble or penalized in any way for reporting. If you report symptoms or a positive test, you will receive immediate instructions on what to do and CSU’s Public Health Office will be notified. Once notified, that office will contact you and most likely conduct contact tracing, initiate any necessary public health requirements and/or recommendations and notify you if you need to take any steps.

For the latest information about the University’s response, please visit the CSU COVID-19 site (https://covidrecovery.colostate.edu/).
COURSE DESCRIPTION & OBJECTIVES

Modern theoretical and empirical approaches are applied to understand producer decision-making under uncertainty, technology adoption and effects of innovation, measurements of technical efficiency and productivity, and advanced models of agricultural markets.

Upon the completion of this course, students will be able to:

1. Identify the contributions of existing literature and explain the theoretical and empirical modeling techniques used in this literature.
2. Infer the appropriate modeling technique(s) to answer a research question related to agricultural production and technological change.
3. Implement modeling techniques to answer real-world problems within the field of production economics.
4. Generate novel research questions.
5. Articulate contributions and defend modeling choices and interpretation of results for novel research questions.
6. Critique research on the importance of a contribution, appropriateness of modeling techniques, accuracy in interpreting results, and presentation of information.

PARTICIPATION / BEHAVIORAL EXPECTATIONS

You are expected to participate in course discussions every week (there will be 1-2 required discussion posts each week). This will require you to review 1-2 assigned readings each week and watch recorded in class materials. I anticipate that you will spend an average of 6-9 hours per week working on course assignments, reading materials, and participating in online discussions. Please note that participation (i.e. discussion posts or participation in synchronous activities) accounts for 10% of your final grade. Discussion posts will open Sunday morning at the start of the week and will close the following Sunday at midnight. You are expected to complete your post within this allotted time.

Please review the core rules of netiquette for some guidelines and expectations on how to behave in an online learning environment.

COURSE POLICIES (LATE ASSIGNMENTS, MAKE-UP EXAMS, ETC.)

Late assignments will receive a +/- letter grade lower per day the assignment is late. As an example, if your assignment would have earned an A submitted on time, you will receive a B+ if you submit it two (week) days late. If you cannot submit an assignment on time due to illness or
other unforeseen circumstances, please communicate with me at least two days prior to the
due date and we can discuss options to reduce penalization.

**GRADING POLICY**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>100% to 96.67%</td>
</tr>
<tr>
<td>A</td>
<td>&lt;96.67% to 93.33%</td>
</tr>
<tr>
<td>A-</td>
<td>&lt;93.33% to 90.0%</td>
</tr>
<tr>
<td>B+</td>
<td>&lt;90.0% to 86.67%</td>
</tr>
<tr>
<td>B</td>
<td>&lt;86.67% to 83.33%</td>
</tr>
<tr>
<td>B-</td>
<td>&lt;83.33% to 80.0%</td>
</tr>
<tr>
<td>C+</td>
<td>&lt;80.0% to 76.67%</td>
</tr>
<tr>
<td>C</td>
<td>&lt;76.67% to 70.0%</td>
</tr>
<tr>
<td>D</td>
<td>&lt;70.0% to 60.0%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60.0% to 0.0%</td>
</tr>
</tbody>
</table>

As a student enrolled in this course, one of your responsibilities is to submit course work by the
due dates listed in Canvas. With that said, I take my role as your instructor very seriously, and,
in fact, I care about how well you do in this course and that you have a satisfying, rewarding
experience.

To that end, it is my commitment to you to respond individually to the work you submit in this
class and to return your work in a timely manner. Smaller, weekly assignments and quizzes will
be returned within 5 (week) days and major assignments, exams, and essays will be returned
within 10 (week) days. (If, however, due to unforeseeable circumstances, the grading of your
work takes longer than the times I have listed here, I will keep you informed of my progress and
make every effort to return your work with feedback as soon as I can.)

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Grade Points</th>
<th>Grade Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussions/Participation</td>
<td>30</td>
<td>10%</td>
</tr>
<tr>
<td>Problem Sets (three)</td>
<td>90</td>
<td>30%</td>
</tr>
<tr>
<td>Referee Report</td>
<td>30</td>
<td>10%</td>
</tr>
<tr>
<td>Research Paper</td>
<td>120</td>
<td>40%</td>
</tr>
<tr>
<td>Presentation</td>
<td>30</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>300</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

*Keep a copy of all work created for the course, including work submitted through Canvas
course learning management system.*
# Course Calendar and Assignment Due Dates

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assigned Work</th>
<th>Work Due**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/24 – 1/28</td>
<td>Course overview</td>
<td>paper topics</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8/31 – 9/4</td>
<td>Advanced producer theory and analysis I</td>
<td>paper topics</td>
<td></td>
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<tr>
<td>3</td>
<td>9/9 – 9/11</td>
<td>Advanced producer theory and analysis II</td>
<td>paper proposal</td>
<td></td>
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<tr>
<td>4</td>
<td>9/14 – 9/18</td>
<td>Advanced producer theory and analysis III</td>
<td>PS1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>9/21 – 9/25</td>
<td>Agricultural systems modelling</td>
<td>paper proposal</td>
<td></td>
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<tr>
<td>6</td>
<td>9/28 – 10/2</td>
<td>Metrics of efficiency and productivity I</td>
<td>PS1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>10/5 – 10/9</td>
<td>Metrics of efficiency and productivity II</td>
<td>PS2</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>10/12 – 10/16</td>
<td>Applications of efficiency and productivity analyses I</td>
<td>referee report</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10/19 – 10/23</td>
<td>Applications of efficiency and productivity analyses II</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>10/26 – 10/30</td>
<td>Applications of efficiency and productivity analyses II</td>
<td>paper draft 1</td>
<td></td>
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<tr>
<td>11</td>
<td>11/2 – 11/6</td>
<td>Technology and Productivity</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>11/9 – 11/13</td>
<td>Contract theory I</td>
<td>PS3</td>
<td>PS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fall Recess – course will move online for remainder of semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>11/23 – 12/27</td>
<td>Contract theory II</td>
<td>draft 1 peer review</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>11/30 – 12/4</td>
<td>Advanced market models</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>12/7 – 12/11</td>
<td>Advanced market models</td>
<td>PS3</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>12/14 – 12/18</td>
<td>Course paper presentations</td>
<td>paper and presentations</td>
<td></td>
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</table>

*No classes 9/7

**Assignments are due by midnight on the last date of the week listed in the table. For example, paper topics are due by midnight on Friday, 9/4.

## Course Materials & Equipment

You will be required to access some data analysis software – I will be teaching in STATA, but you are welcome to use R or Python instead (we can discuss if you have a different program preference). I expect your homework to be typed in either LaTeX\(^1\), Markdown\(^2\), or Microsoft Word.\(^3\)

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\(^1\) For those of you just starting with LaTeX, I recommend the program LyX, https://www.lyx.org. For those who are more experienced or want to just jump in, you will probably benefit from Texstudio, https://www.texstudio.org, or Overleaf, https://www.overleaf.com. Overleaf is particularly useful for collaborating!

\(^2\) Some useful resources on markdown can be found at: https://www.markdownguide.org/getting-started/ and https://yihui.org/en/2018/07/latex-math-markdown/

\(^3\) Note that if you plan to go into academia, I strongly recommend learning LaTeX. If you want to go into consulting or tech, I strongly recommend learning Markdown. If you are really opposed to both, stick with Word.
Recommended Textbooks (not required):

There is no required textbook for this course and the lecture materials and discussions will largely draw from academic papers. That being said, there are a few books that might be helpful for you in this course and for your future work in the field:


Course Readings:

This course will primarily draw from academic articles from top field journals. Below is a fairly comprehensive list of the journal articles we will be drawing from throughout the semester (organized by course topic), but it is plausible that readings will be added as the semester progresses. Also, please do not be intimidated by the length of this reading list. Many of these I will simply reference in our discussions, some you will be expected to only skim for the main points, and for only 1-2 readings each week you will be expected to read the papers in depth.

Introduction and overview of topics:


Head, Keith. The Introduction Formula. Link: http://blogs.ubc.ca/khead/research/research-advice/formula


**Advanced Producer Theory and Analysis:**


**Agricultural Systems Modelling:**


**Technical Efficiency and Productivity:**


**Technology and Productivity:**


**Contract Theory in Agriculture:**


**Advanced Market Models:**


ECO Watch: Coronavirus Lockdowns Keep Bees at Home and Put Crops at Risk. Link:

CANVAS INFORMATION, COVID-19 & TECHNICAL SUPPORT

Canvas is the where course content, grades, and communication will reside for this course.

- Login: canvas.colostate.edu
- Support: info.canvas.colostate.edu
- For passwords or any other computer-related technical support, contact the Central IT Technical Support Help Desk.
  - (970) 491-7276
  - help@colostate.edu

The Technical Requirements page identifies the browsers, operating systems, and plugins that work best with Canvas. If you are new to Canvas quickly review the Canvas Student Orientation materials.

ACADEMIC INTEGRITY & CSU HONOR PLEDGE

This course will adhere to the CSU Academic Integrity/Misconduct policy as found in the General Catalog and the Student Conduct Code.

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

Further information about Academic Integrity is available at CSU’s Academic Integrity - Student Resources.

UNIVERSAL DESIGN FOR LEARNING/ACCOMMODATION OF NEEDS

I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying
memo from The Student Disability Center may be required before any accommodation is provided.

The Student Disability Center (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the SDC.

THIRD-PARTY TOOLS/PRIVACY

Please note that this course may require you to use third-party tools (tools outside of the Canvas learning management system), such as Skype and others. Some of these tools may collect and share information about their users. Because your privacy is important, you are encouraged to consult the privacy policies for any third-party tools in this course so that you are aware of how your personal information is collected, used and shared.

COPYRIGHTED COURSE MATERIALS
Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sites (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor’s express permission, including with online sites that post materials to sell to other students, could face appropriate disciplinary or legal action.

UNDOCUMENTED STUDENT SUPPORT

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit Student Support Services for Undocumented, DACA & ASSET for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

TITLE IX/INTERPERSONAL VIOLENCE

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy please go to: Title IX – Sexual Assault, Sexual Violence, Sexual Harassment.

If you feel that your rights have been compromised at CSU, several resources are available to assist:

- Student Resolution Center, 200 Lory Student Center, 491-7165
- Office of Equal Opportunity, 101 Student Services, 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Victim Assistance Team at: 970-492-4242.

RELIGIOUS OBSERVANCES

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an
exemption from attending class or completing assigned course work for a religious holiday will need to fill out the Religious Accommodation Request Form and turn it in to the Division of Student Affairs, located on the second level of the Administration building.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

**CSU PRINCIPLES OF COMMUNITY**

**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.

**DIVERSITY AND INCLUSION**

The Mission, Vision, and Focus webpage of the Vice President for Diversity includes a comprehensive statement of CSU’s commitment to diversity and inclusion.