AGED 240

Technical Tool Applications in Agricultural Education
Tuesdays, 2:00 – 3:40 pm
ARDEC Rm. 150

Descriptive Information
Instructor: Nathan Clark
Agricultural Education
Department of Agricultural and Resource Economics
B 332 Clark Building
(970) 491-3930 (w) or (970) 978-7207 (c)
nathan.clark@colostate.edu
Office Hours: Wednesdays 9 to noon or by appointment.

Catalog Description:
Development of safe competencies and applications related to power and technical tools utilized in school based Agricultural Education programs.
1.000 Credit hour

Prerequisite:
Concurrent enrollment in AGED 320 is required.

Course overview:
The Power, Structure, and Technical Systems (PSTS) pathway is an essential component of our secondary agricultural education programs in Colorado. It is essential that agricultural education graduates are provided the knowledge and ability to safely teach and apply the tools required in this pathway. This course is designed to provide students with the essential information and skills needed to be successful and safe while teaching in the PSTS pathway.

Texts:
None required, selected readings will be provided.

Optional Texts:

Additional Class Material:
Students will need to provide approved safety glasses and other appropriate safety gear (i.e. closed toe shoes). All other materials will be provided.

Course Objectives:
1. The student will identify a safe work environment and demonstrate safe practices.
2. The student will be able to read, develop, and interpret technical manuals.
3. The student will develop products which reflect their competence in Agricultural Education tool applications.
4. The student will demonstrate the use of current technology and principles utilized in a secondary Agricultural Education program.
5. The student will interpret information on labels and signs in agricultural technical systems.
6. The student will identify and apply power and technical tools common in the agricultural education power, structure and technical labs.
7. The student will determine and apply the proper tools for application requirements found in agricultural education.
8. The student will identify, select, and apply fasteners and hardware in an agricultural education setting.
9. The student will utilize principles in tool selection and safety to complete an application project around agricultural education.
**Instructional Methodology/Mode of Delivery:**

The class will utilize weekly readings, homework, and online lectures, followed by safety tests and classroom discussions. Practical application of principals in the lecture/discussion will be performed in the laboratory setting.

**Course Topics/Flow of Course:**

1. Safety and expectations for workplace and school settings and distinguishing safe and unsafe work environments
2. Safety in personal equipment and attire by wearing safety glasses and protective clothing at all times
3. Interpret equipment manuals and determine proper operation, safety, maintenance, troubleshooting & repair
4. Identify power, structure, and technical, tools and their uses in Agricultural Education
5. Demonstrate proper and safe operation of tools
6. Maintain and store p.s.t tools appropriately
7. Identify specialty tools used in power, structure and technical laboratories
8. Demonstrate proper and safe operation of specialty p.s.t. tools
9. Maintain and store specialty tools appropriately
10. Determine the tools necessary to complete a project/job
11. Define and utilize appropriate terms used in p.s.t. applications
12. Determine what types of p.s.t. tools are needed for use in different applications
13. Select and utilize appropriate types of hardware fasteners needed in the p.s.t. applications
14. Utilize the tools and knowledge in a p.s.t. application project

**About CSU Student Honor Pledge:** "I have not given, received, or used any unauthorized assistance."

**How Did CSU Adopt the Honor Pledge?**

During several consecutive student administrations, at least since 2006, ASCSU has discussed promoting the honor pledge as a way to encourage student academic integrity. As her 2008 Honors Thesis, "Shaping a Culture of Academic Integrity at Colorado State University", ASCSU President Katie Gleeson recommended adopting an honor pledge at CSU. A bill to endorse instructors' use of an honor pledge was introduced in the ASCSU Senate in November of 2009. That bill was authored by Eric Whittington, a Senator from the College of Liberal Arts, and had the support of the current and past two Directors of Academics for ASCSU. The bill was discussed by all of the Senate subcommittees and returned to the Senate floor in April of 2010, where it passed. The bill was then forwarded to the Faculty Council and University administration.

The Faculty Council Committee on Teaching and Learning considered the ASCSU recommendation during the 2010-11 academic year. Faculty Council held on open forum on the issue in February, resulting in several amendments agreed to by a special task force and the Executive Council. On May 3, 2011 the issue came before Faculty Council. It passed on a unanimous vote with no amendments.

The amendment to the Faculty and Professional Manual, as passed by the Faculty Council, was forwarded to the Board of Governors. It was approved on June 20, 2011. The revised academic integrity section of the Manual, section I.5 can be seen in its entirety here

**Method of Evaluation:**

Students will be evaluated on discussion/participation based on weekly assigned readings, unit safety examinations, weekly laboratory activities, unit quizzes and final examination.

**Evaluation Criteria**

- Weekly Assigned Readings: 10%
- Unit safety examinations: 10%
- Weekly Laboratory Activities: 50%
- Unit Quizzes: 20%
- Final Examination: 10%
PST Tool Units:
Circular Saw
Jig Saw
Miter Saw
Table Saw

Band Saw
Drill Press
Corded/Cordless Drill
Portable Sanders

Router
Bench Grinder
Angle Grinder
Metal Cutting Chop Saw

Unit Assignments:
Safety 20 pts./tool (240 total pts.)
Maintenance 10 pts./tool (120 total pts.)
Operation 20 pts./tool (240 total pts.)
Application of Tools 100 pts.
Determine Appropriate Tool for an Application 100 pts.
Application Project 200 pts.
Total 1000 pts.

GRADING SCALE:

A+ 100 - 97
A 96.9 - 93
A- 92.9 - 90
B+ 89.9 - 87
B 86.9 - 83
B- 82.9 - 80
C+ 79.9 - 77
C 76.9 - 73
C- 72.9 - 70
D+ 69.9 - 67
D 66.9 - 63
D- 62.9 - 60
F Below 60

Note: This grading scale is consistent with EDCT 485, the student teaching experience. As we value preparing you for the next step in your teacher licensure development, grading scales in agricultural education classes will be consistent with you're the scale used in your final capstone courses.

OTHER IMPORTANT CONSIDERATIONS

Attendance and Participation: There will be an evaluation by the instructor on your participation in this class. Your preparedness to learn, initiative, imagination, creativity, cooperation, and development towards a desirable professional attitudes are critical. Prompt and daily attendance is required. Any student who misses more than two class meetings will be required to withdraw from this class and to re-take it at another time. More than four tardies will likely constitute a major distraction to the instructor and to other class members and will result in a loss of points. If you will be absent from class, an email to the instructor PRIOR to the start of class is required (this is what you would do if you were to be gone from a day of teaching at school). Assignments are STILL due on the due date, whether you are in attendance or not. Please make arrangements accordingly.

Valued professional behaviors include actively participating in class activities, asking probing questions to extend ideas, considering concepts from different perspectives, listening with purpose, contributing in class, collaborating in group processes, demonstrating cooperative behavior, being considerate and courteous to peers/supervising professionals, responsible attendance, arriving on time, meeting assignment deadlines, and other behaviors which promote the goals and objectives of the class. Valued professional behaviors are part of your grade for this course.

Accommodations for Successful Learning: Students who, due to any disabling condition, may need special or unique accommodations in order to succeed in this course are asked to so identify themselves and the accommodations needed to the instructor early in the semester. Every effort will be made to ensure that all students in this course have every opportunity for success. All information provided the instructor will remain entirely confidential.
IMPORTANT DATES FOR FALL 2013

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
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<tbody>
<tr>
<td>August 26, 2013</td>
<td>Classes Begin</td>
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<tr>
<td>August 30, 2013</td>
<td>Restricted Drop Deadline (You may no longer drop certain courses – see schedule)</td>
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<td>Graduation Contracts Due</td>
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<td>TBA</td>
<td>CAS Back to School BBQ! Free Food! 4:30pm Monfort Quad</td>
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<tr>
<td>September 1, 2013</td>
<td>Last Day to Add a Course without an Override</td>
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<td>September 1, 2013</td>
<td>Add override begins</td>
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<td>September 2, 2013</td>
<td>Labor Day - No Classes</td>
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<tr>
<td>September 11, 2013</td>
<td>Registration Closes/ Census (end of add/drop period)</td>
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<td>September 11, 2013</td>
<td>Student Option Pass/Fail and Audit Grading Forms Due</td>
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<tr>
<td>September 17, 18</td>
<td>Cas Back to School BBQ! Free Food! 4:30pm Monfort Quad</td>
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<td>September 25, 26</td>
<td>Ag Adventure- ARDEC Facility</td>
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<td>September 28, 2013</td>
<td>Ag Day BBQ/Football Game, contact Pam Schell to volunteer</td>
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<tr>
<td>October 21, 2013</td>
<td>Repeat/Delete Requests Due</td>
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<tr>
<td>October 21, 2013</td>
<td>Course Withdrawal Period Ends</td>
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<tr>
<td>October 25, 2013</td>
<td>PLACE Registration Deadline for November Exam (Exam # 040)</td>
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<td>November 16, 2013</td>
<td>PLACE Exam</td>
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<td>November 25-29</td>
<td>Fall Recess</td>
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<tr>
<td>December 13, 2013</td>
<td>Last Day of classes and to process a University Withdrawal (withdraw from all courses)</td>
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<td>December 16, 2013</td>
<td>Final Examinations Week Begins</td>
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<td>December 24, 2013</td>
<td>Grades available on RamWeb</td>
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For more information regarding course add/drop policies through the university check the following website: [http://www.colostate.edu/Depts/Registrar/registrationchanges.htm](http://www.colostate.edu/Depts/Registrar/registrationchanges.htm)

"A Note to Students: If you have any physical or learning disability which might compromise your success in this class, please make an appointment to see the instructor(s). They are willing to make appropriate accommodations that will enhance your learning opportunities in this class. If you have not already contacted the Office of Resources for Disabled Students, please do so. The location is 100 General Services Building, 970-491-6385."

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<tr>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>Week #1 August 27</td>
<td>General Information</td>
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<td>General Safety Overview/Tests</td>
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<td>Confidence Survey</td>
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<td>Corded and Cordless Drills Overview/Demo/Safety/Skill Development</td>
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<td>Week #2 September 3</td>
<td>Miter Saw Overview/Demo/Safety/Skill Development</td>
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<td>Circular Saw Overview/Demo/Safety/Skill Development</td>
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<td>Week #3 September 10</td>
<td>Jig Saw Overview/Demo/Safety/Skill Development</td>
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<td>Band Saw Overview/Demo/Safety/Skill Development</td>
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<td>Week #4 September 17</td>
<td>Table Saw Overview/Demo/Safety/Skill Development</td>
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<td>Drill Press Overview/Demo/Safety/Skill Development</td>
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<td>Week #5 September 24</td>
<td>Hand Sander(s)Overview/Demo/Safety/Skill Development</td>
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<td>Router Overview/Demo/Safety/Skill Development</td>
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<td>Week #6 October 1</td>
<td>Angle Grinder Overview/Demo/Safety/Skill Development</td>
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<td>Bench Grinder Overview/Demo/Safety/Skill Development</td>
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<td>Week #7 October 8</td>
<td>Metal Cut Off Saw Overview/Demo/Safety/Skill Development</td>
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<td>Catch-up and final project discussion.</td>
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<tr>
<td>Week #8 October 15</td>
<td>FINAL PROJECT/FINAL EXAM</td>
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