AGRI 421 Course Syllabus

Course Description:
Curriculum development and methods of teaching and motivating students in agricultural mechanics. 2.0 hours seminar, 3.0 hours laboratory.

Prerequisites:
Students should have completed AGET 120 and AGET 150 (or equivalent courses) before taking this class.

Instructor:
Michael Spiess

Office Hours and Contact Information:
Current contact information and office hours are available on Vista. See the Contact Me icon.
Note: Email is a good way to contact the instructor outside of class or office hours. Emails are generally answered within 12 hours or less. However some student messages may be trapped by the campus spam filter. To reduce your chances of having your message blocked always include a subject line, don’t add links to the message, and don’t type in all caps.

Class Meeting:
Wednesday 1700-2150 in Shop II. Attendance is also REQUIRED at the Chico State Field Day (Saturday) See schedule for date.

Course Objectives:
Students will:
- Have an understanding of basic shop tasks commonly found in agriculture
- Be able to perform basic shop tasks common to agriculture
- Develop the ability to work safely in a shop environment.
- Demonstrate their ability to layout projects from drawings.
- Be able to create drawings of simple projects.
- Be able to correctly identify common tools and materials
- Develop an understanding of projects and materials that will enable them to create a bill of materials for common farm or classroom projects
- Be able to solve project construction problems such as efficient use of materials, materials selection, etc.
- Utilize various teaching procedures and techniques.
- Develop teaching objectives in Ag mechanics.
- Develop a file of appropriate lesson plans.
- Select tools and materials used in effective shop classes.
- Identify factors lending to an effectively layed-out shop facility.
Lead a discussion of student evaluations of demonstrations and lessons.

Practice & model safety procedures in Ag mechanics shop lessons.

Successfully teach a “typical high school” lesson dealing with situations including, but not limited to: discipline, time limits, evaluation, management, etc.

Teach several lessons involving demonstrations in Ag shop.

Organize, plan and prepare for teaching Ag mechanics skills.

What the student should know:

The steps to follow in developing teaching objectives and lesson plans in Ag mechanics instruction.

The clinical teaching procedures and elements of good teaching.

The development of a shop program budget and how to purchase tools, materials and supplies.

Shop management and organization techniques.

The general purposes and objectives of Ag mechanics instruction in Agricultural Education.

The teacher’s legal responsibility for conducting shop and fieldwork activities.

Fully understand the California Educational Code relative to eye protection.

The importance of giving prompt attention to student first aid needs.

The obligation of the teacher relative to teacher liability in school shop accidents.

Required Texts:


Herren, Agricultural Mechanics Fundamentals & Applications, 4th or 5th edition (or similar text)

AGRI 421 Supplemental Readings & Reference (available in Vista, Adobe Acrobat Reader is required).

Required Materials & Equipment:

Students are responsible for obtaining materials for lab assignments (lessons). SAFETY GLASSES are required.

Web Site and Computer Use:

Computers are an integral part of agricultural mechanics industry and students are expected to use this technology as part of the course. Some materials for this course are found on the course web site delivered by WebCT. These materials are an integral part of the course and students will be expected to review it regularly. Written assignments are expected to be typed. Generally, assignments will be provided in MS-Word format allowing the student to print and edit the document. Students not familiar with computers or use of the Web (or WebCT) are strongly encouraged to seek training (see instructor for further information). Computer portions of this course can be completed on a home computer with an internet connection or in a campus computer lab (see http://www.csuchico.edu/stcp/labs/ ). Information on other computer resources for students is available at: http://www.csuchico.edu/stcp/

On the web site students will find:

- Lecture Notes (PDF) provided as a study aid only.
Assignments and Exercises
- Grades (generally posted after the 4th week)
- A current course activity schedule
- Other resources and required reading.
- Resource materials

Class Attendance:

Much of the course content is composed of demonstrations and lessons given by the students and the instructor. Class participation and feedback is a key part of the curriculum. Students will be graded on attendance.

Course Management:

- Use of the shop outside of the scheduled class time will be permitted provided that an instructor is in the building and at least two students are in the shop (for safety). Students are expected to work safely and thoroughly cleanup. Abuse of this privilege will result in loss of the privilege.
- Cleanup of the shop is commonly part of the class activity. Students not participating in shop cleanup will have points deducted from their grades.
- Students are expected to complete the assigned reading prior to class and actively participate in discussion of the reading.
- Student collaboration is encouraged; however each student must do their own work. (e.g. graphs, written answers, etc.)
- Student grades will be posted on the Instructor’s web site and it is the responsibility of the student to check their grade for accuracy. If a student feels an error in grading has been made, the student has one week from the time of the assignment is returned to them (or the grade is posted on the web, whichever is later) to request a review of the grade. The request must be in writing – attached to the original assignment—and must include a specific statement as to what is in error, how it should be corrected, and what supporting evidence is available. It is highly recommend that students keep copies of assignments.
- Use of tobacco products is not allowed during class or lab.
- Students are expected to turn off all pagers, cell phones and other electronic devices during class time. No texting please.
- In class use of laptop computers is limited to use related to the course. NO email, IM, etc.
- Students are expected to pay attention and participate in class meetings.
- All class participants are expected to exhibit respectful behavior to other students and the instructor.
- All students have the right and privilege to learn in the class, free from harassment and disruption.
- Inappropriate or disruptive behavior will not be tolerated, nor will lewd or foul language.
- The class follows the standards set in the Code of Students Rights and Responsibilities (EM 96-38) and students are subject to disciplinary action for violation of that code.

Demonstration and Lesson:

Each student will deliver one or two demonstrations (15 minutes) and a lesson (50 minutes). One demonstration/lesson will be farm power related and the other in the shop skills area. One presentation (either the demo or lesson) will include a “project” of your own design with complete plans and a sample of the completed project. Students will provide materials for the demonstrations and lessons. Arrangements for use of farm equipment must be made well in advance for the time it is needed.

Demonstration/lesson assignments are due at the time of presentation and copies for the class members are expected. Handouts and lesson plans will included as part of the “binder” assignment.
**Vista Discussion**

Students will be expected to contribute to weekly on-line discussions (Vista) during the semester. Discussions are designed to engage the class between class meetings and stimulate independent thought. Discussions will be posted by Monday before the class and students are expected to review all entries prior to the class meeting on Wednesday. See assignments for the rubric used to evaluate the discussion. Each student will lead a discussion topic.

**Grading:**

Grades will be determined by:

<table>
<thead>
<tr>
<th>Approximate Points</th>
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<tbody>
<tr>
<td>Safety Test</td>
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<td>Binder</td>
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<tr>
<td>Demonstration (1-2)</td>
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<tr>
<td>Complete Lesson</td>
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<tr>
<td>Field Day Summary and other assignments</td>
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<tr>
<td>Rubrics (2)</td>
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<td>Other Assignments</td>
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<td>Capital Budget</td>
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<td>Materials Budget</td>
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<td>Projects</td>
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<td>On-line Discussions (14)</td>
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<td>Curriculums (final)</td>
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<tr>
<td>Demonstration Attendance &amp; Feedback (5 points each)</td>
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Grades will be assigned using the following scale:

- 94% - 100%   A
- 90% - 92%     A-
- 87% - 89%     B+
- 83% - 86%     B
- 80% - 82%     B-
- 77% - 79%     C+
- 73% - 76%     C
- 70% - 72%     C-
- 67% - 69%     D+
- 60% - 66%     D
- Below 60%     Failure
Course Binder:

Students are expected to keep a contemporaneous binder of lessons, assignments, and handouts during the class. The CDE portfolio is included in the Binder. These materials will be useful references for new teachers.

Policies Common to the University and College of Agriculture

University and College Policies will be enforced in this course. See:
# Course Schedule

<table>
<thead>
<tr>
<th>Week Of</th>
<th>Topic</th>
<th>Reading*</th>
<th>Assignments**</th>
<th>Discussion Topic</th>
<th>Activity</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/26/2009</td>
<td>Introduction to Class Career Development Events in Ag Mechanics/Sample Demonstrations</td>
<td>Chapter I CATA Code on CalAgEd</td>
<td>CDE Portfolio Getting Connected</td>
<td></td>
<td>Field Day Planning &amp; Organization, Signup for Demos/Lessons/Discussion</td>
<td></td>
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<tr>
<td>2/2/2009</td>
<td>Grading Rubrics for Ag Mechanics / California Curriculums for Ag Mechanics / Sample Demonstration</td>
<td>Chap 1,2,3, Review CA Curriculum on CalAgEd</td>
<td></td>
<td>Safety Quiz, Grading Rubric Activity / CDE Discussion</td>
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<tr>
<td>2/9/2009</td>
<td>Teacher Prep Ag Mechanics Standards / Curriculums in other States</td>
<td>Standards on CalAgEd / Safety Issues</td>
<td>CDE Test Questions Due / Demo Plan Due</td>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Grading Rubric Activity / Test Questions / Plan / Rubric Discussion</td>
<td>Demo #1 (5)</td>
</tr>
<tr>
<td>2/16/2009</td>
<td>Student Learning Outcomes / Academic Standards / Acceptable Use</td>
<td>See CDE site, Curriculum on CalAged Chapter 4,</td>
<td>CDE Rubric/Plans Due/Materials Ordered</td>
<td></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Rubric Activity (SLOs) / Field Day Prep</td>
<td>Demo #1 (5)</td>
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<tr>
<td>2/23/2009</td>
<td>Lesson Planning / Shop Materials Planning / Internet Resources (CRAPP)</td>
<td>Tort Reading</td>
<td>Digital Resources Acceptable Use</td>
<td></td>
<td>Field Day Prep / Tool ID Test</td>
<td>Demo #1 (5)</td>
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<tr>
<td>3/2/2009</td>
<td>Instructional Strategies: Stations/ Shop Safety and the Teacher’s Responsibility</td>
<td>Chapter 6,7,8,9</td>
<td>Shop Materials Budget</td>
<td>CoP</td>
<td>Field Day Prep Field Day</td>
<td>Demo #1 (5)</td>
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<td>3/16/2009</td>
<td>Spring Break</td>
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<td>3/23/2009</td>
<td>Instructional Strategies: Assessment Teacher Attitudes Lesson Plan Due</td>
<td>Lesson Plan Due</td>
<td>Field Day Evaluation</td>
<td>Project Building (Bring Materials) and Lesson Prep</td>
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<td>3/30/2009</td>
<td>Tool and Materials Control Chap 12 &amp; 13 Field Day Evaluation Teacher Attitudes</td>
<td>Chap 12 &amp; 13</td>
<td>Field Day Evaluation Due</td>
<td>Teacher Attitudes</td>
<td>Lesson (4)</td>
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<td>4/6/2009</td>
<td>Curriculum Development Shop Chap 5, Chap</td>
<td>Chap 5, Chap</td>
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<td></td>
<td>Lesson</td>
<td></td>
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<tr>
<td>Week Of</td>
<td>Topic</td>
<td>Reading*</td>
<td>Assignments**</td>
<td>Discussion Topic</td>
<td>Activity</td>
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<td>4/20/2009</td>
<td>Material and Tool Planning: Budgeting, Material Acquisition</td>
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<td>Shop Capital Budget</td>
<td>Ag Mech Curriculum Materials Presentations</td>
<td>Field Trip</td>
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<td>4/27/2009</td>
<td>Ag Mechanics Instruction supports academic skills</td>
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<td>Chapter 14</td>
<td>Shop Inventory / Tool Storage</td>
<td>Lesson (4)</td>
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<tr>
<td>5/11/2009</td>
<td>Service Learning</td>
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<td>Binder Due</td>
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<td>Lesson (4)</td>
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<td>5/18/2009</td>
<td>Final Wednesday 6-7:50 p.m</td>
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<td>Project Presentations</td>
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*Complete before first lecture of the assigned week. ** Assignments can be found on the course web site and may change during the semester. See the calendar for current schedule. Assignments and due dates are approximate, see Vista Assignments.

**Course Schedule:** The course schedule is subject to change. Changes will be announced in class and posted on Vista.