MOREHEAD STATE UNIVERSITY
PROFESSIONAL EDUCATION UNIT

DEPARTMENT OF AGRICULTURE SCIENCES

TEACHING AGRICULTURAL MECHANICS
AGR 685
Fall 2010

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Office Hours: Contact office for appointment

Course Description: (3-0-3); on demand. Equates with AGR 485. Objectives and methods, equipment and management of the shop; organization of facilities for high school and vocational technical programs.

"Community Engagement: A Light to and From the Mountains"

The Professional Education Unit at Morehead State University delivers rigorous, high quality programs that prepare professionals informed by best national and international scholarship, research, literature, and experiences specific to Appalachia- preparing professionals to improve schools, quality of life, and the communities in which they live and serve. This statement is not only the strategic mission for the College, but it also incorporates the conceptual framework that guide out activities.

Conceptual Framework Outcomes (CFO's): The Unit and the faculty within individual programs assess the degree to which its graduates:

1) Master the content knowledge, professional and the twenty – first century skills need to make an optimal contribution to "whole" student learning in education settings.

2) Are competent in the collection and use of data to inform decision – making and to demonstrate accountability for student learning.

3) Demonstrate professional dispositions

4) Are culturally competent and understand the regions from which they have come utilizing knowledge and experiences to effectively "bridge the gaps" (economic, achievement, and geographic) ensuring optimal learning for all students.

5) Engage in authentic field experiences in collaboration with committed school – based partners and are empowered to improve the quality of education throughout this region and beyond.

Student Learning Outcomes (SLO's): This course will prepare the present teacher or pre-service teacher to better establish management, organization, and safety measures in a laboratory environment.

1. Develop proper layout and organization of an agricultural mechanics laboratory.
2. Gain research-based knowledge of required state and national safety guidelines within and around the agricultural mechanics lab.
3. Present four lessons of coursework/semester and produce a series of safety exams, measures, and SOPS for students, faculty, and staff to follow in the lab.
4. Gain research-based knowledge and skills on the various pieces of equipment that can be found in an agricultural mechanics laboratory.
5. Create a yearlong curriculum calendar for a basic high school agricultural mechanics course.
6. Serve as a teaching assistant throughout the semester.

Competencies Developed: Competencies will be developed and relate to the course objectives. These competencies will relate to the basic understanding of the material covered from the proposed course outline.

NCATE/EPSB Accreditation Alignment of SLO's and CFO's:

Aligned with→ **Assessment↓** **(point values)**	**ISLLC Standards (KYS)**	**Kentucky Education Reform Act (KERA)**	**Education Professional Standards Board (EPSB)**	**NCATE**
Attendance (100) **CFO: 3** **SLO: n/a**	n/a	n/a	n/a	n/a
Agricultural Mechanics Layout (100) **CFO: 1 – 2** **SLO: 1**	3	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Safety Research	1 – 6	C	Diversity, assessment,	1, 3, 4

Project (100) **CFO: 1 - 5** **SLO: 2, 4**			literacy, achievement gap	
Lesson 1 (100) **CFO: 1 - 5** **SLO: 1 - 6**	1 - 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Lesson 2 (100) **CFO: 1 - 5** **SLO: 1 - 6**	1 - 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Lesson 3 (100) **CFO: 1 - 5** **SLO: 1 - 6**	1 - 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Lesson 4 (100) **CFO: 1 - 5** **SLO: 1 - 6**	1 - 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Equipment Research Project (100) **CFO: 1 - 5** **SLO: 2, 4**	1 - 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Curriculum Calendar (100) **CFO: 1 – 5** **SLO: 1 – 6**	1 – 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Teaching Assistant (100) **CFO: 1 – 5** **SLO: 1 - 6**	1 – 6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4
Final/Portfolio (100) **CFO: 1 – 5** **SLO: 1 - 6**	1-6	1.1 – 1.4, 5.1 – 5.5	Diversity, assessment, literacy, achievement gap	1, 3, 4

Assignment Descriptions:

Program: High Grades (9-12) Career and Technical Education (CTE 478)	
Assessment (point value)	**Description**
Attendance (100)	Candidates are expected to attend all sessions of classes for which they are enrolled. Absences shall not lessen the student's responsibility for meeting requirements of the course.
Agricultural Mechanics	The candidate will develop proper layout and organization of an

Layout (100)	agricultural mechanics laboratory.
Safety Research Project (100)	The candidate will gain research-based knowledge of required state and national safety guidelines within and around the agricultural mechanics lab.
Lessons 1 – 4 (400)	The candidate will present four lessons of coursework/semester and produce a series of safety exams, measures, and SOPS for students, faculty, and staff to follow in the lab.
Equipment Research Project (100	The candidate will gain research-based knowledge and skills on the various pieces of equipment that can be found in an agricultural mechanics laboratory.
Curriculum Calendar (100)	The candidate will submit a yearlong curriculum calendar for a basic high school agricultural mechanics course.
Teaching Assistant/Professionalism (100)	The candidate will serve as a teaching assistant throughout the semester.
Final/Portfolio (100)	The candidate will submit the class portfolio.

Textbook: This course will utilize various teaching methods which best lend themselves to the subject matter. This may include lecture, laboratory, simulations, demonstrations, and other various techniques. The student must always be prepared for presenting the subject content. Reference material will be used as determined by the instructor.

This course will utilize e-mail, Blackboard (web-based program), and the internet as a medium to communicate throughout the semester. Students must be prepared to check e-mail and the Blackboard site daily. Extensive course materials and reading assignments will be included. Handouts in paper form will be provided for this course occasionally. You must be prepared to find some handouts on the internet and read them. If you want copies, print them.

Grading Policy: All papers, reports, and presentation material will be handed in must be typed, double-spaced, with pages numbered (except for the cover page) and follow APA guidelines. Each assignment and exam will be on a 100-point scale. All assignments are due at the beginning of class time. Late assignments will be subject to a 10% grade reduction from the beginning of class time and another 10% reduction for each day thereafter. There will be no make-up exams given unless extenuating circumstances exist as approved by the instructor. If you miss an exam or quiz, it will be calculated as a zero.

There will be a 100 point grade on professionalism. Professionalism may include but not limited to the student's attendance, tardiness, preparedness, class behavior, leadership, participation in class discussion, etc.

No electronic communication devices are allowed to be in the 'on' mode while class or laboratory sessions are being conducted. No use of tobacco is permitted in the classroom or laboratory. Violations of these policies will be reflected as a part of the professionalism grade.

A final letter grade will be assigned to each student based on the following number of percentage points that he/she makes:

Grades:

A	90 or above
B	80-89
C	70-79
D	60-69
E	Below 60

Assignments: Assignments may be added or deleted at the discretion of the instructor.

Attendance Policy: Students are expected to attend all sessions of classes for which they are enrolled. Absences shall not lessen the student's responsibility for meeting requirements of the course. The assessments given will measure the ability of the student to recall information, apply information, analyze situations, synthesize the information, and evaluate a situation to make an informed decision. The instructor may change topics, assignments, and point values as appropriate.

Agricultural Education Honor Code: The Honor Code expressly forbids the following academic violations:

Cheating: Cheating involves the actual giving or receiving of any unauthorized aid or assistance or the actual giving or receiving of any unfair advantage of any form of academic work, or attempts thereof.
Plagiarism: Plagiarism includes the copying of the language, structure, ideas and/or thoughts of another and passing of someone else's original work, or attempts thereof.
Falsification: Falsification includes the statement of any untruth, either verbally or in writing, with respect to any circumstances relevant to one's academic work, or attempts thereof. Such acts include, but are not limited to, the forgery of official signatures, tampering with official records, fraudulently changing an examination or other academic work after the testing period or the due date of the assignment.

The violation of any part of the Honor Code will not be tolerated. Anyone caught cheating, committing plagiarism, or falsification will be given an 'E' for the semester.

Americans with Disabilities ACT (ADA): Professional staff from MSU Academic Services Center (ASC) coordinates efforts to address accessibility needs and class accommodations with instructors of students who have learning or physical disabilities. Faculty will cooperate with the ASC staff to accommodate the needs of students taking departmental courses.

Academic honesty: Cheating, fabrication, plagiarism or helping others to commit these acts will **not** be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask me. The policy is located at *http://www.morehead-st.edu./units/studentlife/handbook/academicdishonesty.html*.
Note: Copying information from the Internet is plagiarism if appropriate credit is not given.

Campus Safety Statement: This is field experience course students will not be attending classes on campus.

Course Outline:

Week 1 – Introduction and course discussion

Week 2 - Economic Performance – Machine Performance

Week 3 - Economic Performance – Power Performance

Week 4 - Economic Performance – Operator Performance

Week 5 - Costs – Cost Determination

Week 6 - Operations – Tillage, Seedbed Preparation, Cultivation

Week 7 - Operations – Seeding Machines, Chemical Application, Grain Harvesting

Week 8 - Operations – Forage Harvesting, Farm Processing, Materials Handling, Special Crop Machines

Week 9 - Power – The Farm Tractor

Week 10 – Equipment Selection – Machinery Selection

Week 11 – Equipment Selection – Power Selection

Week 12 - Equipment Selection – Used Equipment

Week 13 - Laboratory Exercises

Week 14 - Laboratory Exercises

Week 15 - Laboratory Exercises

Week 16 - Laboratory Exercises

Week 17 - Laboratory Exercises