AGEN 105 Principles of Farm Machinery Syllabus  
Mr. Cross

Credits: 2 credit hours  
Lecture: Thursday 9:00 – 9:50  
Lab: Friday 12:00 – 1:50  
2:00 – 3:50

Office Hours: Monday: 11:00-11:50  
Tuesday 11:00-11:50  
Thursday 11:00-11:50 & 2:00-3:50

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Lecture: 161 Galbreath Hall  
Lab: 117 Marshall Hall  
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Course Description:  
The care, adjustment, operation and repair of tillage, planting and harvesting field machinery common to New York State farms will be discussed in this class. A primary focus of the course will be the adjustment and maintenance of machinery in the laboratory. Efficient machinery selection and use will also be investigated. Principles of safety as applied to the operation, maintenance and repair of agricultural machinery will be applied throughout the course.

Course Objectives:  
1. To develop the ability to recognize common machine hazards and to be able to lessen the chances of being affected by them.  
2. To comprehend that efficient and therefore economic operation of machinery is dependent on proper maintenance, adjustment and operation.  
3. To understand the functioning of each piece of machinery discussed in the course  
4. To understand common breakdowns in agricultural machinery and know how to fix them.  
5. To consider aspects of efficiency including equipment size and efficient operation.

Course Materials:  
1. Course handouts given in class and/or available at the instructor’s web page.
**Student Responsibilities:**
1. To read the course syllabus and to ask questions if the material is unclear.
2. To attend all classes and labs
3. To attend scheduled lab unless previous arrangements are made with the instructor.
4. To make up any and all class work covered during their absence.
5. To complete on time all work including reading, homework, lab write-ups and the term project. Student’s work will show careful, neat, complete and individual effort.

**Lab:**
1. A lab write-up will be due after each lab. The lab which frequently will be handed in electronically is due at the beginning of the following week’s lab.
2. Students are required to attend their scheduled lab unless previous arrangements have been made. Due to the fact that labs are balanced, every effort should be made to attend the scheduled lab.
3. Safety is the most important aspect of the lab work. If a student performs in an unsafe manner, s/he will first receive a verbal warning. The second instance the student will receive a written warning and the third instance will mean removal from the lab and course.

**Attendance Policy:**
- All attendance policies as listed below from the Student Handbook will be followed.
- If a student doesn’t attend a class, then he/she cannot participate.
- The missing of four classes will likely lead to removal from the class.

**Excerpts from the student handbook regarding attendance:**
- Students are expected to attend all scheduled classes and laboratories. However, special circumstances such as illness, religious holidays, travel difficulties, family emergencies and participation in college sponsored events may make certain absences unavoidable. In such instances, students should notify instructors of these special circumstances.
- Although regular class attendance will not guarantee passing grades, irregular attendance will usually have an adverse effect upon them. Because final student evaluation is based upon measurable academic achievement, however, instructors will not lower final grades solely on the basis of attendance.

**Testing Accommodations:**
If you wish to use test accommodations for an exam or need extra help to be successful in the course please speak with me.
Plagiarism:
- The Student Handbook’s policy on plagiarism will be strictly followed. Students that plagiarize can receive an F for the entire course.

The Code of Academic Honesty from the Student Handbook

Academic honesty promotes continued academic and occupational success. Maintenance of academic honesty and quality education is the responsibility of both faculty and students. Any written assignment (including all electronic media) submitted by a student must be original authorship. Representation of another’s work as his/her own shall constitute plagiarism. Any charge of plagiarism must be substantiated by a direct correlation in wording and organization between the original and plagiarized copy.

Any examinations must be taken according to prescribed procedure, as determined by the faculty member in charge. Any form of unauthorized written material used by a student or evident on his/her person during or directly following an examination shall be deemed a violation of academic honesty. Unauthorized correspondence between students during any examination or preparation of submitted work, which cannot be substantiated by physical proof or eye witness verification, shall be considered an infraction of the code and shall subject involved parties to corrective procedures.

Use of Technology:
Morrisville State College is very proactive with the use of technology as is evident with your laptop computer and cellular phone. These are tools that you will likely use throughout your working career but it will be important to know proper technology etiquette. To help in this quest for proper etiquette, the following rules will be strictly enforced.
- An important feature of the cellular phone is the on/off switch. Discover where it is and the only expectable position of that switch is “OFF” during classes and labs.
- Laptop computers may be used during class for assignments and/or for taking notes but the use of wireless cards is prohibited during lectures and labs as is the playing of games and watching videos.

Grading:
- 15% Participation
- 25% Homework and Quizzes
- 25% Tests and Final
- 20% Labs
- 15% Final Project
Course/Lab Topics:
1. Agricultural Machinery Safety
2. Combines
3. Equipment Selection and Efficiency
4. Forage Harvesters
5. Harvesting Machinery
   a. Mowers
   b. Rakes & tedders
   c. Balers
6. Power Requirements
7. Fuel Consumption
8. Agriculture Tires and Ballasting
9. Planting Equipment
10. Final Project
11. Grain Storage and Handling
12. Precision Farming Introduction