**Agricultural Power Systems**

**2016-2017**

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| **Mr. Rode** | [**jrode@neisd.net**](mailto:jrode@neisd.net) |
| **Office: Rm K152** | **(210)-356-1458** |
| **Conference – 8th period (3:15PM-4:05PM)** | **Tutoring available before or after school** |

***Course Description***: Agricultural Power Systems is a course designed to provide students with instruction pertaining to the technical knowledge and skills related to power, structural, and technical agricultural systems and the workplace in which these skills are used. This course will develop the knowledge and skills necessary to seize career opportunities, meet entry level requirements, and exceed industry expectations.

***Course Goals/Objectives***: Students will develop an understanding of power and control systems as related to energy sources, small and large power systems, and agricultural machinery

***Course Topics***: As this course proceeds, we will cultivate our students into responsible, knowledgeable, and respectful members of society. Topics of instruction include, but are not limited to, the following:

* **Employability Characteristics with a focus on Industry Needs and Expectations**
* **Sources of Energy and Power**
* **Electrical Systems**
* **Hydraulic Systems**
* **Mechanical Systems**
* **Small Engines**
* **Agricultural Equipment**
* **Tractors and other Agricultural Power Sources**

***Materials/Supplies Needed***: As an employer would require workers to meet a dress code, so students will be required to meet a dress code during laboratory instruction. A locker will be provided for the student to store items for this course.

(Students will need to bring the following materials to class **each day**)

1. Appropriate work clothes
   1. Comfortable, tight-fitting long sleeve shirt
   2. Long pants in good condition, NO HOLES
   3. Belt
   4. Leather closed toed shoes, boots are preferred.
2. Pen or pencil (**Daily**)
3. A course binder or folder (**Daily**)
4. Computation paper (**Daily**)

***Grading Policy***: Grading is based around the AET Record book. This will be the largest portion of your grade. Safety will count as much as any test grade and will be graded often. Tests and daily work will be of equal measure, much like the day-to-day routines and occasional challenges in the workplace are used to evaluate performance. Quizzes or knowledge tests will count the least toward your grade. This is illustrated in the graphic below.

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| **Grades 9th-12th** | |
| **Category** | **Percentage** |
| **AET Recordbook** | 30% |
| **Safety** | 20% |
| **Tests** | 20% |
| **Daily Work** | 20% |
| **Quizzes** | 10% |

***Course/Program Rules and Expectations for Behavior***: This classroom will be a safe and secure learning environment. **ALL** students will adhere to the following standards:

1. Show respect for yourself, your peers, and your superiors
2. Language will be kept professional when interacting with classmates and instructors
3. Be prompt and punctual to class
4. Adhere to **ALL** safety rules and procedures
5. Keep up with your record book

***FFA Information***: the FFA is a student lead organization with the ability to carry students above and beyond their fellow peers. Do not miss the opportunity to excel in competition, your community, and your country. Dues are $20 for one year of membership; see Mr. Rode for more information.

The James Madison FFA Chapter is hosting Agriculture Olympics on Wednesday, September 12th, at 4:30 pm and we are looking forward to meeting you Agriscience Magnet Program Arena.

***General Information about Program Expectations for FFA/SAE/Recordbook***: This course is designed around keeping accurate records and managing projects. This design coincides with the philosophy of the Supervised Agricultural Experience. Every student will already have both an SAE and recordbook as an integrated portion of their grade. The purpose will be to provide the student with a project that must be planned, proposed, implemented, and maintained just as a real life agribusiness project would need to be.

**Protective Eye Devices in Public Schools**

1. Staff members, students, and visitors must wear industrial-quality eye-protective devices in appropriate situations as determined by school district policy. The guidelines in these sections are applicable to all staff members, students, and visitors within Texas public schools participating in educational activities and programs that involve:
   1. the use of hazardous chemicals;
   2. the use of hot liquids or solids;
   3. the use of molten materials;
   4. performing grinding, chipping, or other hazardous activities where there is danger of flying particles;
   5. milling, sawing, turning, shaping, cutting, or stamping of any solid materials;
   6. heat treatment, tempering, or kiln firing of any metal or other materials;
   7. cutting, welding, or brazing operations;
   8. the use of hazardous radiation, including the use of infrared and ultraviolet lightor lasers;
   9. repair or servicing of any vehicle; or
   10. any process or activity in a vocational, art, industrial arts or science course or laboratory that might have a tendency to cause damage to the eyes.
2. In this section, “industrial quality eye-protective devices” means devices meeting the standards set by the Texas Administrative Code, Title 25, Health Services Part I, Texas Department of Health, Chapter 295, subchapter F, Guidelines for Selection and Use of Face and Eye Protection in Public Schools.

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STUDENT NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I have read and received a copy of the Protective Eye Devices in Public Schools. I understand that I am to wear safety glasses while any work is being performed in a school shop or in a lab environment.

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ STUDENT: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PARENT: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TEACHER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

08/12

**Laboratory Safety**

Laboratory safety is paramount is my classes. Due to the infractions of previous years, I have found it necessary to notify students and parents of the expectations in writing. Each student earns a daily safety grade of 20 grade points per day if they can follow all safety regulations. This adds up to 100 grade points per week if the student is without violation. If there is a violation of safety regulations, the following repercussions will be meted out per infraction.

1. Every violation of safety procedures will be documented.
2. If any intentional violation of a safety procedure results in harm to a classmate, it will be considered grounds for immediate expulsion from any CTE course.
3. Students will be notified of a violation verbally and expected to rectify the violation without argument. A 10 point demerit will be earned.
4. If the student continues to perform the unsafe act after being verbally warned, a demerit of 20 points will be deducted from the weekly safety grade and the student will be removed from the laboratory for the day.
5. If the student consistently performs unsafe acts, earns 3 or more removal violations per week, the student will receive a citation addressed to their parents and be removed from laboratory activity. Parents will have to sign and return the form before the student is allowed to return to the laboratory.
6. Should a student receive 3 citations for safety violation, I will take all documented violations, all communications between parents and myself, plus all signed citation forms to the Career and Technical Education director to seek removal of the student from the class.

**Shop Points**

Every class will be responsible for upkeep of the facility in which they work. This means cleaning one’s area and putting away tools. Since this is a hard concept for students to grasp, I have instituted a system to encourage participation in cleanup. Every class will start with a major test grade of 100 labeled “Shop Points.” These grades will be posted on the board every day of class for all class periods. For every tool left out in the laboratory during or after cleanup, I will deduct one point per tool. Classes can earn back two points per day that no tools are left out. This will be a competition between class periods, as the one with the highest score will earn a reward, yet to be determined.