**Mathematical Applications in AFNR**

**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***: Mathematical Applications in Agriculture, Food, and Natural Resources is a course designed to be prepare students for careers in agriculture, food, and natural resources, students must acquire technical knowledge in the discipline as well as apply academic skills in mathematics. Students should apply knowledge and skills related to mathematics, including algebra, geometry, and data analysis in the context of agriculture, food, and natural resources. To prepare for success, students are afforded opportunities to reinforce, apply, and transfer their knowledge and skills related to mathematics in a variety of contexts.

***Course Goals/Objectives***: Students will apply mathematical knowledge and skills related to agriculture, food, and natural resource industries.

***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:

* **Agribusiness Systems**
* **Animal Systems**
* **Environmental Systems**
* **Food Products and Processing Systems**
* **Natural Resource Systems**
* **Plant Systems**
* **Power, Structural, and Technical Systems**

***Materials/Supplies Needed***:

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

1. Pen or pencil (**Daily**)
2. A course binder or folder (**Daily**)
3. Computation paper (**Daily**)

***Grading Policy***: Grading is based around the AET Record book and tests. This will be the largest portion of your grade. 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 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% |
| **Tests/Projects** | 30% |
| **Daily Work/Assignments** | 25% |
| **Quizzes** | 15% |

***Quizzes***

Quizzes can be given at any time during the class period. The majority of quizzes will be taken online on Moodle.

***Assignments***

1. Classwork is due at the end of each class.
2. Projects and longer activities will have due dates assigned to them.
3. Homework reinforces material taught that day or prepares a student for the next day’s lesson.

**REMINDER:**

* It is very important to show all of your work. If you do not have sufficient work shown, you will not receive full credit.
* This course requires that all assignments be written in complete and thought out sentences. In the event that an assignment does not follow the above guidelines, the assignment will be returned and will be considered late.

***Tests/Projects***

Tests will be announced in advance. If a student is absent the class before the test, he/she will take the test on test day. The tests will cover material from several sections that were previously taught. At least three tests/projects will be given every 9 weeks. (Section 1 of Project- 20%, Section 2 of Project – 14%, Tests 16%)

***Responsibilities after an Absence***

If you are absent, you are responsible for getting your make-up work. You will need to schedule a time to make up tests or quizzes. If you have an unexcused absence, you will receive a 20% penalty for any assignments, quizzes, and/or tests.

***Late Work***

Late work will be accepted up until the day of the test for a particular unit for a grade no better than an 80. Any late work turned in after a test for that unit will result in a zero.

***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. Keep up with your record book

***Disciplinary Action***

1. Verbal Warning
2. Student Conference/Change of Seating Assignment(Documented)
3. Parental Contact/Conference(Documented)
4. Detention(Documented)
5. Office referral(Documented)

***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.