**Ag Chemistry 14-15**

**Woodland High School Agriculture Department**

 Instructor Mr. Eric Dyer

 Cell 530-681-0251

 eric.dyer@wjusd.org

**COURSE DESCRIPTION**

Ag Chemistry is a one year, laboratory science course, which satisfies the UC subject “D” and CSU Lab Science Requirements. Using agriculture as the learning vehicle, the course emphasizes the principles, central concepts and inter-relationships among the following topics: Scientific Measurement; Atomic Structure and the Periodic Table; Nuclear Chemistry; Chemical Names and Formulas; Stoichiometry; Chemical Reactions; Thermochemistry; Behavior of Gases; Electrons in Atoms; Chemical Periodicity; Ionic and Covalent bonding; Solutions; Reaction Rates and Equilibrium; Acids and Bases; Neutralization; Hydrocarbon Compounds; Functional Groups and Organic Chemistry; and the Chemistry of Life. This course is centered on extensive laboratory component in order to connect the big ideas of life science with agricultural applications, earth and physical science principles, and other curricular areas, including written and oral reporting skills. Agricultural Chemistry is a science course, which utilizes agricultural examples and principles only as a learning vehicle to reinforce science principles.

**A. COURSE GOALS**

 1. Utilize agricultural applications as a relevant vehicle to teach scientific principles and improve the science literacy of students.

 2. Strengthen instruction in science for students pursuing professional level careers in agriculture.

 3. Integrate mathematical standards, language arts standards, and career employability standards, including creative thinking and problem solving skills, and technological literacy related to the agricultural industry.

 4. Meet a portion of the laboratory science requirement for admission to the University of California and California State University systems.

 5. Develop a sense of interrelationships between life, earth, and physical science and their relationship to agricultural applications.

 6. To motivate under represented populations to study and pursue careers in science and agriculture.

**B. PREREQUISITE**

 Students should have a passing grade of a “C” or better in Ag Biology and be concurrently enrolled in Geometry or beyond.

**C. COURSE FORMAT**

 1. 35% classroom instruction, including:

 Discussion, Demonstration, Lecture, Assignments, Guest Speakers

 2. 35% Laboratory and/or field instruction, including:

 Science laboratory experiences, Field research projects

 Science Fair Project

 3. 10% FFA leadership experiences, including:

 Verbal and written communication exercises

 Leadership development activities

 4. 10% Supervised Agriculture Experience Project

 Individually developed supervised agricultural experience projects

 5. 10% Science Fair Project (first semester).

 Science Demonstration at Farm Connection Day (Second Semester).

**D. GRADING**

**A large percentage of a student’s grade will be based upon tests.** Like many college courses, grades in this class will emphasize mastery of the material rather than the completion of tasks.

**Students are *required* to score at least 70% on all tests. Students not scoring this baseline will get a zero and are required to retake the test.** Students retaking the test can only earn up to an 89%. Students can only receive an A on a test if they score that on their first try.

Students will have the opportunity to attend test review sessions and then retake the test the following week. There will be scheduled sessions for each. After 2 weeks, there will be no more retakes and a student not meeting the baseline requirement will receive a final score of 0.

Because the material builds on prior units, it is important that students remain confident on material they have previously learned.

Students are expected to monitor their own understanding of the material. If you are ever struggling with Chemistry, please come get help! I am available at a variety of times throughout the week (usually sometime each day), and those times will be posted weekly on the whiteboard.

**E. GRADES**

A= 90-100 B= 80-89 C= 65-79 D=50-65 F=<50

Grades will be posted in the classroom or on Schoolloop. If you have a question or concern about your grade, you must make an appointment with me after class, during lunch, or before or after school. I can also be contacted via e-mail at anytime for your grade. DO NOT ASK ABOUT YOUR GRADE DURING CLASS TIME.

**F. Assignments:**

All homework assignments are due at the beginning of the period. Write legibly, using proper letters. Assignments can be done in cursive or printing. A correct heading is required on all assignment. Include first and last name, date, and period in the upper right hand corner of all assignments.

Long term projects and labs MUST be turned in the day they are due for full credit.

**Late work:**

I do not accept late homework. No credit will be given after 3 days.

**Absences:**

It is crucial that you be in class each day. Please make every effort to not miss class. **You are responsible** for making sure you have all material missed during absences, including getting notes, picking up any handouts, and setting up appointments with the teacher for any missed labs or assessments. Assignments are available and it is your responsibility to find out what you have missed. You have the number of days absent to complete work for credit. For regular daily assignments (other than projects and labs), you have as many days to make up the work as you have been “excused” for your absence. Only students with excused absences may receive points for make up work. **You will receive a zero on all work missed due to an unexcused absence unless a parent or guardian contacts me directly.**

For missed assignments that cannot be taken home, such as labs or tests, you will need to set up an appointment before, during, or after school. Some activities will have specific times for make ups; at least two different times will be offered. **All labs and tests must be made up within a week.** Otherwise, you will receive a zero. It is your responsibility to ensure that all assignments are made up in a timely manner.

**G. Science Research Project**

The Research project is a key part of our class. Students will find pertinent information on schoolloop. All students are required to submit their final project on or before **December 5, 2014.** A Science Research Project presentation night will be held at WHS the following week based upon the school schedule. This research project will minimally satisfy the FFA Project requirement for the first semester.

**H. COURSE RULES AND EXPECTATIONS**

1. Students will be active participants in class. Materials and

assignments need to be in class with the students before the bell.

1. Student behavior which impacts classroom success and operation will not be allowed.
2. Students will not be able to turn in late homework or assignments unless prior arrangements have been made or absences are excused. Excused absences will be given only the amount of time missed to be turned in, it is incumbent on the student to provide work without being prompted.
3. Lab safety rules will be adhered to at all times. Safety infractions will not be tolerated.
4. All students must participate in 3 FFA and Academy activities each semester; it is part of the grade.

**I. CONSEQUENCES**

1. Positive
2. Public praise
3. Note home
4. Phone home
5. Visit Home
6. Negative
7. Warning
8. 30 minutes on detention with Mr. Dyer
9. 30 min of detention with Mr. Dyer, student must call parent
10. Parent meeting, student must be present
11. Referral to Vice Principal and 1 hour detention

**J. COURSE MATERIALS**

1½ inch Notebook with five dividers.

Lined paper

Black or blue ballpoint pen

#2 pencils (mechanicals are OK)

A free reading book!

Scientific Calculator-- Must do exponent functions. Should be less than $20.

**K. FFA and Projects**

All students in Ag Chemistry are automatically enrolled in Woodland FFA Chapter. This is 10% of the grade. This grade is earned from students participating in no less than 3 FFA leadership events. Literally there are over a hundred events. It is expected that students participate in 1 event every grading period, some exceptions may occur but no less than 3 per semester. These “points” are known locally as “Point Award Points” and the top students in the chapter are recognized at the annual banquet. The top students will attend a “Point Award Trip” (PAT) at the end of the year.

 **FFA Jackets**—not required but definitely encouraged. Wearing them gets points!

 **Projects**—these activities are intended to use science in real life. You may be aware of animal projects and these are included but projects related to agriculture are acceptable. We will plan accordingly.

**L.** Web access – [www.whs.wjusd.org](http://www.whs.wjusd.org) Schoolloop

 Also watch for key info at www.woodlandhighagmrdyer.weebly.com