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Chemistry Honors

Mrs. Herman: hermads@interact.ccsd.net,

Class Website: http://dherman.educatorpages.com



LOURSE DESCRIPTION:

This course is designed for those students who have successfully completed Algebra I and exhibit an interest in science, especially chemistry. Topics include: mathematics of chemistry, safety, laboratory procedures, elements-compounds-mixtures, atomic theory and structure, structure and organization of the periodic table, mole concept, chemical bonding, nomenclature, chemical equations, stoichiometry, kinetic molecular theory, phases of matter, solutions, acids-bases theory, equilibrium, thermochemistry, organic chemistry, nuclear chemistry, chemistry of the environment, and career opportunities. Additional topics may include history of chemistry, biochemistry, qualitative chemistry, and research projects.

The course will incorporate lectures, demonstrations, laboratory exercises, and problem solving exercises. Classroom technology in the form of power point presentations, educational TV, the internet, and interactive cyber-experiments will be used during this course. This course will fulfill one science credit towards high school graduation and qualifies as a laboratory science for college entrance.

TEXTROOK:

Modern Chemistry – Hold, Rinehart, and Winston.

LOURSE OBJECTIVES:

Upon completion of this course, the student will be able to reason scientifically and think flexibly; communicate scientifically; manage time more wisely; feel more comfortable with technology; exercise better common sense; ask better questions; understand science concepts and value science; exhibit confidence in the ability to solve scientific problems; and collect, manipulate, and present data using proper mathematical form. They will also better understand the importance of responsibility, accountability, civility, commitment, leadership, teamwork, attention to detail, and the work ethic needed to succeed in adulthood

*** Starting in the 2016-17 School Year, CCSD is adopting the NGSS (*Next Generation Science Standards – aka Common Core*) for the Chemistry Curriculum.



l'm just afraid they won't get a good reaction

NGSS COURSE CONTENT AND TOPIC LINE:

UNIT 1: A is for Atom (6 weeks)

- How is the universe organized? Why are mass numbers NOT listed on the periodic table? (2 weeks)
- Why would a nucleus change? (1 week)
- What's trending on the periodic table? (3 weeks)

UNIT 2: **B** is for **B**onding (6 weeks)

- How do substances combine or change to make new substances? (2 weeks)
- How does the molecular structure of a substance affect its macroscopic properties? (2 weeks)
- How do the properties of a substance determine its use? (2 weeks)

UNIT 3: C is for Chemical Reactions and Calculations (7 weeks)

- Why do all chemical reactions occur? How do an element's valance electrons play a role in chemical reactions? (3 weeks)
- How does stoichiometry support the Law of Conservation of Mass? (4 weeks)

UNIT 4: D is for Differences in Energy (7 weeks)

- What is the difference between heat and temperature? (2 weeks)
- How can a model describe the flow of energy in and out of a system? (1 week)
- [sic] Why do materials hot/cold? (2 weeks)
- Why do nuclear reactions release more energy than chemical reactions? (2 weeks)

UNIT 5: E is for Equilibrium (6 weeks)

- How are effective collisions related to reaction rates? (2 weeks)
- How do macroscopic changes affect molecular level interactions? How do chemical reactions respond to stress (1 week)
- How can you use stresses to manipulate a chemical system? (3 weeks)

<u>LAB&RAT&RY SAFETY:</u>

Due to the nature of this course, we will be performing many hands-on laboratory experiments. Students will be thoroughly instructed in the techniques for handling such equipment and materials. It is important that the student wear appropriate safety clothing (eye ware, gloves, apron), follow lab safety rules, adhere to experiment directions, and remain tightly focused at all times in the laboratory. Failure to do so can result in harm to the student and those around him/her.

Accordingly, penalties for failure to adhere to these tenants will be immediate and severe.

MATERIALS:

Please bring these materials with you to class each day:

- writing utensils: pens, pencils, highlighters, colored pencils
- 2 spiral bound 5-subject notebooks 180+ pages (1 for each semester)
- Scientific calculator
- Glue stick or scotch tape, and a pair of scissors
- your brain 😊



result in the loss of the daily participation points.

NEBSITE:

A brief summary of each day's classroom activities and a listing of assignments, upcoming quizzes and tests, and other information of interest will be available at

http://dherman.educatorpages.com

GRADING:

Grades will be determined by taking the number of points earned divided by the number of total possible points. Points can be earned by participating in the following activities: tests, quizzes, laboratory exercises, homework, and classroom participation (includes note taking). **Participation grades** will be judged solely by the teacher and will be determined upon the following factors: behavior, attitude, attendance, note taking, completing assignments on time, and volunteering to answer questions. The opinion of the teacher on participation points in FINAL. **Citizenship grades** will be judged solely by the following factors: behavior; behavior, attitude, attendance, and will be determined by the following factors: behavior.



<u>There are NO extra credit assignments</u>

ON AVERAGE: HOMEWORK COMPRISES 5%, LABS AND PROJECTS ARE WORTH 35%, AND TEST AND QUIZZES ARE WORTH 60%





- a. Homework will be given daily, and is usually due the following class period.
- b. Late and Make-up Work: Students will be expected to turn in all work on time, unless absent on the day an assignment is due.
 - (1) Work turned in at the beginning of class on the due date will be eligible for full credit.

(2) LATE WORK IS NOT ACCEPTED!

- (3) You may use your "GOODDF" card once per quarter to turn in an assignment up to **3 days** after the due date.
- (4) Absent students are allowed THREE DAYS after they return to obtain and turn in absent work. IT IS THE STUDENT'S RESPONSIBILITY TO FIND OUT WHAT THEY MISSED, and to MAKE UP THAT WORK WITHIN THREE SCHOOL DAYS! (Students should check the "Resource Box" to see what they missed, and to obtain those assignments. Extra assignment worksheets will be kept for two weeks after the assignment is given; after that time, those worksheets will be thrown away.)
- (5) Due to the nature of labs (some are time sensitive, some are not), if a student misses part/all of a lab, **it will be up to the teacher to determine how the student will make up what they missed.** This MAY include, but is NOT limited to:
 - obtaining results from their team
 - coming in on their own time to make up the lab
 - doing an alternative lab assignment
- (6) Students that are absent on the day of the test only will make up the test **THE FOLLOWING DAY IN CLASS**. Students that were absent for multiple days including a test day will have 3 days to make up the test upon their return to school (some exceptions apply and will be determined on a case by case bases).
- c. Quizzes and Exams: Quizzes and exams will be based on assigned readings, classroom demonstrations, presentations, lectures, discussion, and laboratory work. Exams will look very much alike in terms of format. They will typically include questions of the following types: multiple choice, fill in the blank, true/false, matching, math problems, graphing, and essay. Each type of exam question will be weighted relative to its importance and difficulty. There are NO "do-overs" or "retakes" in Chemistry, so you will need to study and be pro-active about your education to do well on the quizzes and exams the first time.
- d. Quarterly and Semester Exams: A comprehensive exam <u>may be</u> administered at the end of the first and third quarters. These exams would include all the material studied during those quarters, respectively. A comprehensive semester final exam <u>will be</u> administered at the end of the second and fourth quarters. This semester exam will cover all the material studied during both of the associated quarters.
- e. **NOTEBOOK CHECKS:** To see how well you keep and organize your work, and other materials given out in class, EVERYTHING done for the class need to be kept in the notebook until the end of the semester. **Notebook checks will be done the day before and/or the day of the exam. If you do not have your notebook on the day of the notebook check, you will receive a zero.**





f. ACADEMIC INTEGRITY

NO WAY!

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IN AFELONY!

Plagiarism in a school environment is academic dishonesty ... aka: CHEATING. It will not be tolerated and, if

discovered, will be dealt with severely. The consequences may include receiving a grade of zero on that assignment, failing the quarter or semester, and/or being RPC'd or expelled from Rancho High School.

In Webster's Dictionary, plagiarism is defined as:

- 1. To steal and pass off (the ideas of another) as one's own.
- 2. To use (a created production) without crediting the source.
- 3. To commit literary theft.
- 4. To present as new and original an idea or product derived from an existing source.

Directly copying someone else's work and then taking full credit for it is the most flagrant kind of plagiarism. However, there are other, more subtle forms of plagiarism. For example, in a science course:

1. Copying someone else's ideas and answers on a test or quiz is cheating.

2. Giving or receiving information on exams outside the classroom is cheating.

3. Accepting or giving help during a test or quiz., or using a calculator or notes without expressed permission of the teacher. (This includes using notes stored on a calculator.)

4. Directly copying someone's homework is plagiarism. Working together on assignments is acceptable if ideas are shared, but the actual transcription onto paper must be an individual effort.

5. Directly copying answers from a text is plagiarism. It is usually not necessary to credit one's own text when giving answers, but ideas from any other book must be footnoted.

6. Science research papers are governed by the same rules that apply to all research papers. Facts and commonly accepted ideas need not be acknowledged, but all opinions, interpretations of facts, original ideas, charts, and direct quotes must be footnoted.

7. Using someone else's data without giving credit or, worse, making up data to fit the expected answer are forms of plagiarism. It is acceptable to present your own obviously erroneous data, to state the reasons that you feel the results should be disregarded, and then to present another student's data – making sure that the source is acknowledged.

The educational process is based on the principle that the less educated learn from the ideas of the more educated. **Students should, therefore, use ideas and opinions of others. This is not plagiarism. Plagiarism occurs when this use is NOT acknowledged.**

COMPUTATION AND VEIGHTING OF STUDENT GRADES:

Letter Grade	Percent Range
А	90-100%
В	80-89%
С	70-79%
D	60-69%
F	Less than 59%



Semester grades will be computed using the same rubric but weighting the quarter and final exam grades as follows: 1ST SEMESTER GRADE = 40% (Q1 GRADE) + 40% (Q2 GRADE) + 20% (FINAL EXAM) 2ND SEMESTER GRADE = 40% (Q3 GRADE) + 40% (Q4 GRADE) + 20% (FINAL EXAM)

How and when students will be advised of their grades:

Grades will be displayed on the wall by the door (updated every Friday) for student to monitor their progress. Students should review this posting to identify missing assignments. Never discard any assignment, quiz, or test until you see your grade posted on the printout. I, and the student aides, do make mistakes. If I fail to post a grade for you, you will be easily able to produce the graded assignment to correct our error.

Grades will be available on Infinite Campus: https://www.infinitecampus.com/ please contact your counselor for a username/password to access this website.

ATTENDANCE:

In reference to **CCSD Regulation 5113,** Rancho High School follows the "11th Unexcused Absence/ No Credit Policy". See the following website for more information on Regulation 5113:

http://ccsd.net/district/policies-regulations/pdf/5113_P.pdf

CLASSRUUM RULES: (Or the top 10 ways to make Ms. Herman happy and give you all your participation points!)



1. In regards to "Cell Phone Manners and Courtesy":

CELL PHONES ARE NOT TO BE USED, IN ANY WAY SHAPE OR FORM, DURING CLASS. ... this INCLUDES TEXTING!

Texting during class is VERY rude, and is NOT acceptable in a college environment. It is also a QUICK WAY to get on my "bad side".

If I see you use your phone in class, I will assume you are cheating, and treat you accordingly.

2. Bring materials to class. You should bring your notebook daily, along with your calculator, and materials to take notes. **Do NOT bring food or drink, as part of this room is a working laboratory**, and eating in the class is dangerous to your health!! *(However, this IS Vegas, so water bottles are allowed)* **Being caught eating in class will result in a loss of points, detention, or possibly a Referral for insubordination.**



3. If you are going to be/have been absent, it is **YOUR** responsibility to see me about the make-up assignment(s). Do this before or after class, **NOT DURING!** (It is considered RUDE to expect a teacher to STOP class to take care of YOUR problems). Assignments are also posted online every day, this is available on the web site:

http://dherman.educatorpages.com

For homework and tests, you are allowed **THREE DAYS** after the return from your absence to obtain and turn in your missing work.

4. <u>Do your homework</u> – the only way to succeed is to practice! Class time is for working, not playing. Should you complete your classroom assignment, then you may work on something else. Wasting time (playing cards, etc.) will not be tolerated.

5. Do not talk while someone else (especially Mrs. Herman) is talking. Please raise your hand if you have a question and I will call on you as soon as I am at a stopping point. I expect the students to behave respectfully.

6. While attendance is taken at the beginning of class, get your materials ready and quietly start on you "IN" assignment. Be ready to start as soon as I am finished! Please be on time. You are considered tardy if you are not entirely in the classroom when the bell BEGINS to ring. Rancho's Tardy Policy will be enforced. 7. Follow all instructions, especially in the laboratory. We are often dealing with potentially dangerous materials, so dress appropriately for the lab.

8. All school rules will be enforced, and YOU ARE RESPONSIBLE FOR YOUR ACTIONS!!

9. Please do not leave the room unless it is absolutely necessary. You MUST have a the room without permission, unless in an emergency situation, will result in a referral.

10. All jokes made by the teacher, no matter how stupid they are, must be tolerated.

EXTRA INSTRUCTION:

I am here for only one reason - to help each of you be successful. Since you don't come to school intending to do poorly, we share a common goal. I have found in life that if you are diligent in doing what is expected of you, you will almost certainly come away from the experience feeling good about your effort and with good marks to show for that effort. I will be available to assist you outside of normal class time on a daily basis – before or after school. But, as "life happens", please schedule an appointment to make sure that I am here for you.

discipline:

Failure of students to adhere to class or school rules, procedures, and policies will result in a full range of appropriate consequences at the classroom and, if necessary, school administration or legal authority levels. Classroom level consequences might include counseling, written warnings, loss of privileges, point deductions, calls to parents, notes home, detention, in-school suspension from the classroom, and lowering of the citizenship grade. If appropriate, more severe consequences might include required parental conferences (RPC), loss of course credit, suspension, expulsion, or arrest. While I want every student to succeed, I will not hesitate to use all the tools at my disposal to insure that no single student interferes with the success of his/her classmates through inappropriate or improper behavior.

** A NOTE TO PARENTS **

Successful students have at least two groups of adults monitoring and encouraging them to do well – teachers and parents/guardians. Most students need both. You can help me help your student be successful in the following ways:

- 1. Emphasize the importance of homework and of completing all assigned work on time. Check the class website as well as with your student frequently to see what work has been assigned.
- 2. Ensure your student has a quiet place/ time in which to study at home each night.
- 3. Help your student with time management. Assist him/her in balancing his/her time appropriately between school work, chores, and relaxation time.

4. Be proactive on knowing how your student is doing in <u>ALL</u> their classes! If you are worried about your student's grade, request a weekly grade print-out for <u>ALL</u> their classes.







