

# General Chemistry/Mr. Andrew Collins

## Huron High School Ann Arbor, MI 48105

Classroom: 5206/lecture 5211/lab

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### Grading Policies

All student grades will come from four sources:

Tests: 65%

Laboratory Experiments: 25%

Homework: 10%

Extra Credit: TBA

*\* At the end of the semester if students are close to the next letter grade (example 89%), I will use citizenship and class participation to determine the extent of the rounding.*

I will use categories to determine overall grades. Example: the computer will stretch/compress all grading categories to meet the 65/25/10 breakdown.

Semester grades will be summarily determined:

#### Semester One

First Marking Period = 40%

Second Marking Period = 40%

First Semester Cumulative Exam = 20%

#### Semester Two

Third Marking Period = 40%

Fourth Marking Period = 40%

Second Semester Cumulative Exam = 20%

**GRADE POINT TOTALS** will be based upon the following percentages:

A+ = 100 + %

A = 93-100%

A- = 90-92%

\* all scores from 0.0 to 0.4% round down

B+ = 87-89%

B = 83-86%

B- = 80-82%

all scores from 0.5 to 0.9% round up

C+ = 77-79%

C = 73-76%

C- = 70-72%

D+ = 67-69%

D = 63-66%

D- = 60-62%

F = 0-59%

### Late assignment/make-up policies

It is very important to keep up on homework and assignments. Deductions will be taken from assignments in the following manner: Homework: less 10% per day Lab reports: less 25% per day

If tests are missed they will be made-up within a two-day period of missing the test. Example: A test is scheduled for Tuesday. A student has an excused absence and they miss the original Tuesday test date. They will complete the test on either Wednesday or Thursday. If students do not complete the test on either of these days they will receive a grade of 0% for the examination.

Laboratory experiments will take place during class in 5211. A missed lab experiment can be made up any day during 7<sup>th</sup> period. At the end of the week the lab experiment will be put away. If the student has neglected to come make up the lab they will receive a grade of 0% for the experiment.

### Chemistry Units Covered

UNIT	TOPICS	READING
1	Intro, Significant Figures, Element Names	Chapters 1 - 3
2	Dimensional Analysis, Unit Conversions, the Mole	Chapters 4 & 7
3	Atomic Structure, Nuclear Reactions, Periodicity	Chapters 28.1, 28.2, 13, 14, 24
4	Naming Ionic Compounds, Covalent Compounds, Acids and Hydrocarbons	Chapters 6 & 25.1
5	Chemical Reactions	Chapter 8
6	Stoichiometry	Chapter 9
7	Thermochemistry and Calorimetry	Chapters 10.4, 11
8	Gas Laws and Kinetic Molecular Theory	Chapters 10.1, 12
9	Bonding: Ionic, Covalent, Metallic, Crystal Structure	Chapters 10.3, 15, 16.1, 16.2
10	Liquids, Water, Intermolecular Forces, Solutions	Chapters 10.2, 16.3, 17, 18
11	Chemical Equilibrium and Kinetics	Chapter 19
12	Acids, Bases, pH, Neutralization Reactions	Chapters 20 & 21
13	Select Organic Functional groups and Polymers	Chapters 25.1, 25.3, 26.4
14	Oxidation, Reduction and Electrochemistry	Chapters 22.1 - 22.3 23.1 - 23.3

## WHY YOU WANT TO SUCCEED IN CHEMISTRY AND HOW TO DO IT.

### Why:

- Chemistry is a gateway subject for most sciences. In fact, one could argue that it is the *Central Science*. This is because other sciences cannot be fully understood without the proper knowledge of materials and molecules. With a chemistry background it will be much easier to succeed in other sciences.
- Colleges will certainly look at your chemistry grades as a predictor of your abilities. Your chemistry performance will provide evidence of study habits, math skills, work ethic and logic.
- Knowledge of chemistry will actually help you understand the world around you. Everything from nuclear power, climate, weather, electricity, consumer products, toxins, what you put in your body, medical decisions, etc. all relate to chemistry. You will need to make decisions about how you want to live your life. Many of these choices will definitely relate to chemistry. By empowering yourself with chemical knowledge, you will make better, more informed decisions. Trust me, nothing feels better than making a decision based on something you truly understand.
- The study skills, organization and logical approach you will learn in chemistry will certainly help you succeed in other courses. This is not only true for your time here at Huron, but for college and life in general.
- Chemistry jobs pay very well, and offer exciting opportunities that challenge you daily. Nothing is better than having a rewarding career that challenges you and makes you stronger.

### HOW:

- ***You need to have a willingness to work hard everyday.*** Chemistry is like learning a new language. There is unfamiliar vocabulary and grammar that you will need to memorize and practice. There is homework everyday, even if not collected. The work is cumulative and you can really get behind quickly. If you are a lazy student who misses class regularly – THIS CLASS IS NOT FOR YOU!
  - Study with friends.
  - Make flash cards of names and symbols that need to be memorized.
  - Study a bit each day. Do not allow the work to pile up.
  - Start studying for tests three days before they will be taken.
  - Ask questions regularly in class.
  - Come get help outside of class. I will be available during 7<sup>th</sup> period in room 5213 on Mondays and Wednesdays. I will be available everyday during the first half of lunch.
- ***You will need to develop an analytical mind.*** Math is critical in chemistry, specifically algebra. If you struggle with math you will need to polish your math skills with tutoring, offered in the math department. In addition to getting math help – you will need to work extra hard. Chemistry integrates concepts from other sciences and math. In order to make sense of all of this you will need to be able to think logically and to be comfortable with numbers.
- ***You will need to get organized!*** The more organized you become, the quicker you can access information. Organization will lead to planning ahead, anticipating due dates, scheduling study sessions, etc. The discipline it takes to stay organized is something you need to succeed, not only in chemistry, but also in college and in your career. Being organized is something that comes with maturing. Get started today!
- ***Attendance is Mandatory!*** The vast majority of what you learn will be in a face-to-face manner *in class*. You will be encouraged to take notes daily and these notes will serve as your study guides. If you do not attend class you will be at a very serious disadvantage.