

# Chemistry I Honors: 2017 - 2018

Miss Jeffs: Chemistry Instructor

E-mail: [jsjeffs@volusia.k12.fl.us](mailto:jsjeffs@volusia.k12.fl.us)

Room 15-201

*Welcome to chemistry class! Decide today to do the best that you can do. Following some simple, but strict policies will ensure your success –remember my job is to teach and yours is to learn. I look forward to having a great school year!*

## Course Requirements

- You are expected to attend class regularly and on time.
- You will maintain an interactive notebook.
- You will use proper etiquette when using technology inside or outside of class for class assignments.

## Materials

- You will be required at times to have your *assigned* textbook. Textbook: Chemistry: Matter and Change by McGraw Hill
- Spiral notebook (**recommended: wider notebook like 5-star**; 5 subject should get you through the entire year, 1 subject should get you through 1 quarter)
- Paper and writing utensil
- Scientific calculator
- Headphones

\*\*\*Cell phones are NOT a part of this materials list. **Cell phones are NOT allowed out of your backpack/purse/binder in class** unless specifically instructed to do so.\*\*\*

## Grading and Absentee Policies

- Overall grade in class is determined by dividing the total points received by the total points possible. The Volusia County grade scale will be used in determining your letter grade. Grading Scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; 0-59 F
- All assignments are due on the scheduled date. Students are to turn assignments in at the beginning of class (no more than two minutes after the bell rings) into the turn-in bin. Should students decide to turn an assignment in online, it must be submitted **BEFORE** they arrive in class. **NO LATE WORK WILL BE ACCEPTED.**
- School absentee policy: One day for each day absent when an excuse note is presented to the teacher within two days of the students' return. Students who do not present an excuse note are still entitled to the make-up work, but can be penalized. It is the students' responsibility to get the work missed.
- To help students monitor their academic progress, grades will be posted and updated weekly on gradebook.
- Summative assessments are weighted as 60%. Summative assessments are those such as unit tests that test a students' cumulative knowledge. Formative assessments are weighted as 40%. Formative assessments are all graded assignments that do not fall under the summative or diagnostic category. Diagnostic assessments are 0%. Diagnostic assessments are assessments such as pre-tests and assignments that do not test a students' knowledge such as the lab safety contract.
- Teacher's Authority to Override Final Grade: A teacher may override the final grade if a student's overall performance warrants it. Before the grade override is finalized, the

teacher must notify the parent/guardian concerning the student's performance if the override may result in a lower final grade. The teacher may issue a failing grade override based on the student's overall performance only with the approval of the principal. (This refers to the final grade of the grading period, or the final grade for the course.)

## Labs

- Depending on the topic being covered, labs may be conducted. One lab per week should be expected. Unsafe behavior in the lab will not be tolerated in any way, as accidents can occur. If a student demonstrates any unsafe behavior, a zero will be given for that lab, and the student will lose lab privileges for the rest of the year. Alternative assignments will have to be completed. Also, if proper lab attire (closed toed shoes) is not worn on the day of labs, the student will not be able to attend lab and will have to complete an alternative assignment. *It is the basic responsibility of everyone in the lab to make lab safety an ongoing commitment.*

## Testing

- Unit exams will be given at the end of each section covered in class. The EOC (End of Course) Exam is cumulative and will be given at the end of the year.
- Test corrections are offered for each test. When students explain the correct answer for the questions they got wrong, students will receive half credit back for those questions. Test corrections must be completed after school on the scheduled test correction day, which will be the Wednesday or Friday following the test. Students are only eligible for test corrections if they are present on the day the test is given. If a student cannot stay after school I must have confirmation from the parent and that student may do test corrections during lunch.

## Class Rules

- The following class rules should be followed at all times with no exceptions:
  - Be respectful
  - Follow all procedures and school policies
  - Be productive
  - Be prepared
- Academic Dishonesty: cheating is not tolerated and will be handled according to the code of student conduct.

## Discipline procedures

- In the unlikely event that class rules are broken, the following disciplinary consequences may be used:
  - Verbal warning
  - Seat Change
  - Time out in another classroom
  - Parent contact
  - Lunch detention
  - Referral

## Chemistry; Unit Overview

An informed parent is an asset to the classroom. In an effort to keep you informed, this syllabus outlines the major units that your child will be studying in chemistry. I encourage you to contact me throughout the school year if you have

any questions regarding your child's progress. Students' progress will mostly be monitored with quizzes throughout the unit and a test at the end of the unit. Some other assignments/projects/labs/notebook checks may contribute to the overall grade as well.

Course Description: The purpose of this course is to review upon science skills already taught in previous grades. The course places emphasis on **scientific analysis and problem solving**. My goal is for the students to be able to use science concepts to understand the world around them.

### Units

What's chemistry got to do with it?

Measurement and Significant Figures

Properties of Matter

How is matter constructed?

Atomic Models, Atomic Structure, and Modern Atomic Theory

Nuclear Chemistry

Mole Concept

Development of the Periodic Table and Periodicity

Electron Arrangement

How do chemicals interact?

Ionic and Covalent Bonding

Chemical Reactions and Equations

Molecular Formulas and Percent Composition

Molar Mass

How much is too much?

Stoichiometry

How is matter transformed?

Energy and Reactions

Intermolecular Forces

Thermochemistry

Gas Laws

What determines the rate of a reaction?

Acids and Bases

Reaction Rates

Equilibrium

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I acknowledge that I have read, understand, and agree to the policies and procedures listed in this syllabus for Miss Jeffs' Honors Chemistry Class.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# Deland High School

## AP Chemistry 2017-2018 Syllabus

Ms. Jeffs

### Course Description and Content

Advanced Placement (AP) Chemistry is designed to be the equivalent of two-semester college chemistry courses and will prepare the student for credit and/or placement in college chemistry. Fall term topics include atomic theory and structure, periodicity, bonding, stoichiometry, aqueous reactions, intermolecular forces, liquids, solids, solutions, gases, kinetics, and equilibrium. Spring term topics include acid-base chemistry, thermodynamics, and electrochemistry. Five weeks are dedicated to review and test preparation for the AP exam in May. Students must exhibit exceedingly high levels of commitment, motivation, and academic maturity to accomplish the goals of this course.

### Goals of the course

- Students will be critical and independent thinkers able to contribute to a scientific and technological society.
- Students will analyze scientific and societal issues using scientific problem solving processes.
- Students will emerge from this course with an understanding of the natural world and its processes.
- In each laboratory exercise, students will physically manipulate equipment and materials to make relevant observations, collect and analyze data, form valid conclusions, and communicate results and procedures.
- Students will take and pass the AP Chemistry Examination in May.

Course Facilitator: Jamie Jeffs

Email: [jsjeffs@volusia.k12.fl.us](mailto:jsjeffs@volusia.k12.fl.us) (most efficient and timely method of communication)

Course Meeting times: 2 periods daily (block); approximately 500 minutes weekly  
Lab Experiments completed in class when scheduled as part of the 500 minutes weekly.

### Website

All materials for the course (Notes, Worksheets, Reviews) can be downloaded from [Ms. Jeffs' AP Chemistry Canvas page](#). It is the student's responsibility to visit the site to obtain materials when needed, especially to make up for an absence. This site will house all announcements and important information as well so students should be on Canvas **daily**.

### Course Notes

Course notes amplify the content of the entire course and are vital to students as a permanent, hard copy summarizing all of the content required to perform well on the AP Chemistry exam. A set of notes should be created from lecture or printed from the teacher's web page before lecture and annotated upon by the student. Notes are the basis for each Unit Test and the cumulative AP Chemistry Exam in May.

### Texts

*Chemistry: The Central Science* (Tenth Edition) by Theodore E Brown, H. Eugene LeMay, Bruce E. Bursten. Prentice Hall Company, 2006.

### Recommended Supplies

- 3-ring binder with loose leaf paper
- pens and pencils
- highlighters
- scientific calculator
- headphones

### Expectations

In order for us to have a successful year we must work together.

(i) Student obligations: Attendance, punctuality, courtesy and respect are expected at all times. On the occasions when it is unavoidable that a class is missed it remains the responsibility of the student to make up any material missed. Laboratory safety is always of paramount importance. Your exemplary behavior and observance of safety procedures is required at all times. The nature of the AP Chemistry program, being equivalent to a college chemistry course, requires students to apply college level learning and study skills. More specifically, students

must take the initiative for their own learning and be prepared to think around problems to find solutions. Please seek help when you are feeling challenged and we will work together.

**“AP Chemistry students should spend 3-5 hours a week  
in individual study outside of the classroom”**

(ii) **Teacher commitment:** I will always grade and return work to you as soon as possible and will be happy to review any challenges that arise. I am always happy to speak to students and parents outside of class and when other time permits (email is preferred). I will prepare you to pass the AP Chemistry Exam and earn College Chemistry credit for college-level coursework.

**Grading Policy:**

**Formative (40%):**

- Homework/Classwork. Homework/Classwork will be completed on a daily basis.
- Labs. There will be 1-2 labs per unit. Grades will be based on participation, results, and conclusions.
- Quizzes. There will be frequent short quizzes assessing knowledge of topics as they are presented.
- POGILs. Small group inquiry investigations on new content (Process Oriented Guided Inquiry Learning)

**Summative (60%):**

- Unit Tests. Students will be tested 3-5 times per quarter.

**Grading Practices:**

Students and parents need timely and accurate feedback in order to effectively monitor learning progress.

- Grade book will be updated weekly (except in the case of extensive assignments or unusual circumstances).
- Students are expected to complete test corrections for each Unit Test to earn back half of the missed credit.

<u>Grade</u>	<u>Grade Range</u>	<u>Quality Points</u>	<u>Description</u>
A	90-100	4.0	Outstanding Progress (Mastery) (5 or 4 on AP Exam)
B	80-89	3.0	Above Average Progress (4 or 3 on AP Exam)
C	70-79	2.0	Average Progress (Proficiency) (3 or 2 on AP Exam)
D	60-69	1.0	Lowest Acceptable Progress (1 on AP Exam)
F	0-59	0.0	Failure
I		0.0	In progress (missing major assessment, make up a Unit Test)

**Extra Credit: Science Research Article Report** (once a quarter for *max* of **1%** increase in overall grade) (*only if no missing assignments*)

Students may submit a typed, detailed report on a feature length article from the publication “*Scientific American*.” SA is a peer-reviewed scientific journal for laypeople. The report must be 3-4 pages, 12 font, double-spaced, and in the student’s own words (*not cut & paste*). The article may be quoted several times if properly footnoted and cited in APA style. The report must be comprised of three parts: (1) a **fact-based summary** of the article, (2) an **opinion-based personal reaction** to the topic, and (3) an **inference-based relation** of the topic to possible social impact and future implications.

**Class Participation:** All students are expected to take an active part in the learning environment of the classroom including:

- attending class daily and on time
- completing HW problems daily or every other day
- reviewing material daily out of class for at least 20 minutes
- attending office hours for help as needed

**Course Outline:**

	<u>First Quarter</u>	<u>Second Quarter</u>
<b>1<sup>st</sup> Semester</b>	Unit 1 Atoms & Periodic Properties (Chp 6,7) (Chp 11,13)	Unit 5 Bonds & IMAFs in Liquids, Solids, & Solutions
	Unit 2 Bonding and Molecular Geometry (Chp 8,9)	Unit 6 Gases (Chp 10)
	Unit 3 Matter, Measurement, & Stoichiometry (Chp 1-3)	Unit 7 Chemical Kinetics (Chp 14)
	Unit 4 Aqueous Reactions in Solution Stoich (Chp 4)	Unit 8 Chemical & Solubility Equilibria (Chp 15,17)
<b>2<sup>nd</sup> Semester</b>	<b><u>Third Quarter</u></b>	<b><u>Fourth Quarter</u></b> (AP Exam Review)
	Unit 9 Acid-Base Equilibria (Chp 16)	8 Topical Review Units & Quizzes (Formative Grade)
	Unit 10 Buffers & Acid-Base Titrations (Chp 17)	3 Practice AP Exams (Summative Grade)
	Unit 11 Thermodynamics (Chp 5,8,19)	Post Exam Topics
	Unit 12 Electrochemistry (Chp 20)	Course Evaluations

## **ADDITIONAL POLICIES:**

### **Homework/ Classwork Policy:**

Students who are submitting late work (due to absence) have one day, or one day for each day absent (whichever is greater), to submit work unless the teacher determines there are extenuating circumstances which necessitate an extension. It will be a best practice for students to make up tests within a school week of the original assigned date unless the teacher determines there are extenuating circumstances which necessitate an extension.

### **Intervention and Remediation:**

The focus of instruction should be on getting students to achieve their full learning potential.

- When students demonstrate a lack of proficiency on standards they must receive intervention(s), which may lead to assessment retakes or alternative assignments.
- When students demonstrate a lack of mastery on standards they may receive intervention(s) that require them to attend office hours.

### **Academic Dishonesty:**

The Volusia County School Board's Code of Student Conduct has defined Academic Dishonesty as a level II offense. Academic Dishonesty is defined as "Dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the school district. Such behavior may result in reduction in grades, classroom discipline as determined by the instructor, suspension or expulsion from school and/or school activities including student organization".

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I acknowledge that I have read, understand, and agree to the policies and procedures listed in this syllabus for Miss Jeffs' AP Chemistry Class.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_