

GHS  
Chemistry Course Syllabus  
Ms. Liao

**General Course Information**

Subject: Chemistry Year: 2016-2017

Department: Science Room #: 135 Periods Taught: 3B, 4B

Course Title: Chemistry

Faculty Name: Grace Liao

Office Hours: 1A, Before or after school by appointment  
Please email me for availability: liaog@hsd.k12.or.us

Course Description: Chemistry is a full year introductory course. Topics include: mathematics in science (scientific notation, SI system, dimensional analysis). chemical and physical properties of matter, the scientific method, atomic molecular theory, nuclear and chemical reactions, stoichiometry, states of matter and physical change, thermochemistry, gas laws, quantum theory, the periodic table and periodic trends, chemical bonding, nomenclature, acids and bases, redox reactions, and equilibrium reactions. Each unit contains laboratory investigations which apply the scientific method, and scientific writing. Guided inquiry experiments are an integral component of laboratory activities each semester. They involve forming a hypothesis, designing an experiment, collecting/organizing and analyzing data to determine if the hypothesis was supported or refuted according to the evidence collected.

Supplies Needed A scientific calculator, pen/pencil/paper, two spiral notebooks (or composition) books

Expectations regarding student effort and attitude on homework assignments: Chemistry involves abstract concepts and uses math. Showing work on calculation problems is required for credit. The course makes use of the particulate model to help students visualize the tiny realm of atoms, ions and molecules. Homework provides additional practice and reinforces study skills necessary to be college ready. Students can expect 30 minutes of homework on class days. Students stumped by a homework question are encouraged to work through the problem, showing their work as far as possible before leaving space to later complete the question. Students should continue to the next assigned question and complete each assignment to the best of their ability. Student effort demands producing a product, even if that product has a few gaps. Student questions are addressed in class and homework is corrected in class for immediate feedback. It is expected that students complete assigned work and turn it in on the due date.

Grading Section quizzes, unit tests, formal laboratory reports and the final exam constitute summative evaluations worth approximately 75% of the grade. Worksheets, text problems, lecture notes, informal laboratory write ups, designated quizzes and group participation are formative assessments which constitute approximately 25% of the grade. Formative evaluations are regularly used to determine if the student is demonstrating understanding of new material which necessitates their participation. The grading scale is approximately: 90-100% A, 80-89% B, 70-79% C, 60-69% D, Below 60% = F

Students are encouraged to see me during office hours for help. While chemistry can be challenging, it is fun to do and fun to learn.

Pogil	Use of POGIL activities (Process Oriented Guided Inquiry Learning) will be utilized in this course. This necessitates the student working in groups to complete some activities. Educational research has shown this to be one of the best science teaching practices that contributes to deeper understanding and retention by students. As such, it is expected that students learn to work and function effectively within their assigned group.
Tardies	Implementation of the school tardy policy will be in effect this year. Please refer to the student/parent handbook for details.
Broad Course Objectives	NGSS standards are being aligned with the curriculum and can be found at: <a href="http://www.nextgenscience.org/search-standards">http://www.nextgenscience.org/search-standards</a> HS-PS1-1 to 8, HS-ESS1-1,3,6, HS-PS2-4,6, HS-PS3-1, 4 and 5, HS-PS4-1,3,4. Specific learning objectives are posted on Schoology.com and are emphasized in lessons, assignments and evaluations (formative and summative).
Text	Addison- Wesley "Chemistry" 4th ed. © 1997      A class set of these texts will be utilized in class.
Grading & Plagiarism	Cheating and plagiarism will not be tolerated. Any student caught cheating will be referred to the administration.
Late work Make up work and No Grade (NG) Policy:	<p><b>Late work</b> is accepted for up to 90% credit if turned in within two weeks of the due date or until a summative quiz or test covering that material is given. Afterwards late work is worth 50%. Students turning in late work need to show the instructor the assignment, ask for the key and grade their own work so they get the feedback needed in time to be eligible for a test retake. Incomplete or missing work is recorded as 49.9%.</p> <p><b>Test retakes</b> are available for two weeks from the original testing date for a maximum grade of 80%. Makeup work must be completed before test retakes will be offered. A No Grade or incomplete grade (N or NG or I) designation will only be considered for extenuating circumstances which must be communicated to the instructor by the student, parent or school counselor. If an NG or I grade is extended to the student, a contract specifying the make-up work and time-line to complete that work will be provided.</p>
Make-up Work Policy	When a student is absent they can determine what was missed by accessing Schoology.com, asking another classmate or by inquiring of the teacher. Makeup labs need to be scheduled outside of class, by appointment before the next class lab activity. In rare cases class data may be provided to the student for their completion of the make-up lab write- up. Missed handouts are in the plastic file bin labeled "chemistry". Electronic copies are available for non-copyrighted material on Schoology.com. Quizzes and tests are scheduled in advance and should be made up the day returning from an absence unless the review for the quiz/test was also missed.
Classroom Conduct	<p>Regular student attendance, punctuality and preparation are expected. Preparation entails bringing completed due work and class materials each day. Practices that contribute to student learning and academic success include: taking an active part in class learning activities, regularly turning in completed assignments on time, having a strong work ethic, and getting help when needed. Active listening when the teacher (or others) are addressing the class helps everyone hear the explanations and assignment expectations. Taking responsibility for making up missed work is very important. Students needing the restroom or drinking fountain should ask during independent practice opportunities to be excused. Students should not request to leave during the "20/20" window or during "2<sup>nd</sup> lunch" per school policy. When these conditions are met, students still need the hall pass and to sign out/in. Abuse of the restroom policy results in a discussion with the instructor, and possible administrative action.</p> <p>Students are expected to show and turn off their cell phone/electronic device at the start of class for the duration of the class except for instructional use as explicitly directed by the teacher. The first violation the student receives a reminder warning, the second violation I confiscate the phone for the student to pick up at the end of class and I contact the parent. A third violation results in the phone being confiscated and sent for parental pickup from the administration.</p>

**Students and Parents/Guardians – Please sign below indicating you have reviewed the content of this 2016-1017 syllabus. Your contact information is also appreciated.**

Student Name (Print) \_\_\_\_\_

Period in class: \_\_\_\_\_ A or B day (circle)

Parent Name(s) (Print first,last) \_\_\_\_\_ father/mother/guardian (please circle)

Parent Name(s) (Print first,last) \_\_\_\_\_ father/mother/guardian (please circle)

Parent contact (only **for email not currently in the school system**, please print)

\_\_\_\_\_ father/mother/guardian (please circle) \_\_\_\_\_

\_\_\_\_\_ father/mother/guardian (please circle) \_\_\_\_\_

Student Signature \_\_\_\_\_ date \_\_\_\_\_

Parent Signature \_\_\_\_\_ date \_\_\_\_\_

Parent Signature \_\_\_\_\_ date \_\_\_\_\_

Parent note to teacher (optional):