GOMPERS PREPARATORY ACADEMY A UCSD Partnership
1005 47th Street, San Diego, CA 92102 p. (619) 263-2171 f. (619) 264-4342 www.gompersprep.org

Course Title: Honors Chemistry
Instructor: Dr Chiscano
Instructor Availability: Tuesday - Thursday 3:15pm-4:15pm
Instructor Contact: kchiscano@gomperscharter.org/ 263-2171 Ext 2121/ Room 21

Course Description:
In this introductory chemistry course, students will investigate the composition of matter and the various changes it can undergo. We will begin by reviewing basic investigative and mathematical principles. Then, we will examine matter on the microscale level, studying the structure of atoms and the periodic table of the elements. We will move up a level in scale by studying chemical bonding, which occurs when atoms join together to form molecules. We will learn to name these molecules and characterize the different reactions that produce them in both a qualitative and quantitative fashion. Next, we will look at matter from a big-picture perspective: the energy changes that accompany reactions, the rates at which reactions occur, and the equilibrium states achieved by these processes. Finally, we will finish the course with a unit on nuclear chemistry. Labs will be interwoven throughout the duration of the course. The course is designed to prepare students for their AP Chemistry class.

GPA Grading Guidelines:

Category	Assignments	Percentage of final grade
Classwork	• Labs and mini-labs • Group work • Exit tickets • Notebook and binder checks	30%
Demonstrations of Learning	• Weekly quizzes • Unit tests	35%
Homework/Independent Learning	• Weekly homework packets	10%
Quarter Finals	• Cumulative exam based on all units covered throughout the quarter	25%

Course Materials:

- **Notebook:** Students will be provided with a notebook for this class and are expected to maintain detailed notes. Notebooks will be checked and graded at the end of each unit.
- **Binder:** Students should have a binder organized in the GPA format with a section devoted to chemistry. Students are expected to organize chemistry handouts according to the format explained in class. Binders will be checked and graded at the end of each unit.
- **Two different colored writing utensils:** Students will frequently correct their own work and their peers' work. Therefore, they need two different colored writing utensils (one for solving problems and one for correcting them). Students should complete their work in either pencil, black pen, or blue pen. They may choose any color for correcting work.
- **Scientific calculator:** Students must have access to a scientific calculator, which can perform operations with exponents, logarithms, and parentheses (a graphing calculator is not required). Scientific calculators are available at stores like Wal-Mart and Target and typically cost between $10 and $15. Students will be provided with a scientific calculator to use during class time. At home, they must either have their own scientific calculator, internet access so that they can use one on their chromebook, or access to a phone with a scientific calculator app. For more detailed questions about calculators or help getting access to one, please see Dr Chiscano.
- **Internet access:** Students will need internet access to complete their homework assignments. If they have completed the online portions, they may have additional practice problems and need to spend time studying for the unit and final exams. It is strongly recommended that students set aside a regular time each Saturday or Sunday to visit the nearest library, use the internet, and spend at least one hour studying. In addition , the students are to be writing laboratory reports and graphing. Some of these items will also be done on the computer to help them learn how to graph on the computer.
- **Textbook readings:** The majority of the course readings come from the textbook *Modern Chemistry* (Holt, 2013) or Chemistry the Central Science (LeMay, 2013) Students will receive printed copies or internet copies of each reading or use the book, and they will be expected to highlight and annotate them according to the format discussed in class.
- **Chromebooks:** Students will bring their charged chromebooks to class every day. They will use them to check their email, complete daily exit tickets, and engage in computer-based simulations. ANd use them to research material to assist with their learning.
- **Google Classroom:** All course resources will be posted on Google Classroom. Students who are absent will complete the list of required items posted in class or on line.

Course Structure:

This course facilitates learning through lectures, note-taking, labs, group problem-solving, projects, scientific texts, and digital resources (such as computer simulations and videos). Students will develop strong textbook reading and note-taking skills. They will also frequently engage in group work and hands-on activities.

Course of Study:

Unit number	Unit name	Duration	Description	Major Assignments/Projects/Quizzes/ Assessments
1	Measurements and Calculations	3 weeks	Students will be able to work safely in the laboratory, design experiments, collect and analyze data, and perform basic calculations essential to the study of chemistry.	-Syllabus and parent information sign and returned. -Lava lab Activity-Scientific observational skills -Density Inquiry Lab -Lab equipment scavenger hunt -Classroom practice work -Safety contract -Self check assignment -Unit Test
2	Atoms/Matter /Classification of Matter	3 weeks	Students will be able to explain the history of atomic theory, describe the modern model of the atom, and write electron configurations for a given element.	-Self check assignments -Unit Test -Chromatography of Kool -aid -Inquiry Lab: Who Done it? Forensic lab -Lab Report Write up -POL- The history of atom project.
3	The Periodic Table	2 weeks	Students will be able to access and apply the information contained in the periodic table, including atomic number, atomic mass, and group properties. They will be able to compare the atomic radii, electronegativity, and ionization energy of any given	-Self check assignment -Unit Test -Bunsen Burner Safety lab -Mass Spectroscopy Lab -Flame test lab -Inquiry lab: How is light produced-CER activity -Speed of light calculation sheets -Spectroscopy lab-determine

			elements based on their positions on the periodic table.	concentration of a drink.
4	Bonding	2 weeks	Students will be able to compare and contrast ionic, covalent, and metallic bonding in terms of electron behavior and the properties of the bonded material. They will also analyze the effect of different types of intermolecular forces on the properties of a substance.	-Self check assignment -Unit Test -Bohr Diagram -Lewis dot structure assignment -Covalent/Ionic bond project -Inquiry lab for chemical bonding: Flinn AP8498
5	Nomenclature	2 weeks	Students will be able to write both names and formulas for ionic compounds, covalent compounds, and acids.	POL-naming of compounds/strong acid and bases Self check assignment -Unit Test
6	Chemical Reactions	2 weeks	Students will be able to interpret, classify, and balance chemical equations.	-Demo observing reactions: Flin # Flinn AP 6605 -Self check assignment -POL: Types of chemical reactions -Balancing chemical equations challenge -Unit Test
7	Stoichiometry	3 weeks	Students will be able to use mathematics to make predictions about the outcomes of chemical reactions.	-Self check assignment -Unit Test -Flinn Stoichiometry kit lab: AP4678 -
8	Gases	2 weeks	Students will be able to analyze the relationship between the volume, pressure, and temperature of a gas using mathematics.	AP9022-gas s pressure lab -Inquiry: Can crush/egg in a bottle; cartisen diver stations. -Self check assignment -Unit Test
9	Solutions	2	Students will be able to	-Self check assignment

		weeks	explain the basic properties of an aqueous solution and calculate concentration in terms of molarity, molality, and mass percent.	_Molarity lab -AP 4862: Solubility inquiry lab -Self Check -Unit Test
10	Acids and Bases	2 weeks	Students will be able to name the properties of acids and bases, calculate hydrogen ion and hydroxide ion concentration from pH values, and write chemical equations to describe neutralization reactions.	-Self check assignment -Unit Test -pH of common household items -titration of a compound-standardization of titrant lab Lab: Acidity of common fruit juices AP6690
11	Thermochemistry	2 weeks	Students will be able to able to analyze the energy transfer in phase changes, perform calculations involving specific heat capacity, and design an efficient melting device.	-calorimetry AP 5852 basics lab -Caloric energy of a hot cheetoh lab -Self check assignment -Unit Test
12	Kinetics	3 weeks	Students will be able to describe the effect of various factors on reaction rate and write equations to model the rate of a reaction.	-Explanation of cinnamon kinetic demo project.- Self check assignment -Unit Test
13	Equilibrium	4 weeks	Students will be able to apply Le Chatelier's principle to predict the shift in equilibrium of a chemical reaction when stress is placed on a system.	-Self check assignment -Unit Test -Demo of equilibrium POL
14	Electrochemistry	3 weeks	Students will be able to write redox reactions and start to understand the chemistry involved in the movement of electrons.	-AP chem-redox reactions: AP5914 -Build a dry cell battery: AP6925 Self check assignment -Unit Test

Course-Specific Student Expectations:

- **Study and homework commitment:** Students are expected to complete one hour minimum of chemistry homework every day after school. If the assigned work takes less than one hour, students should spend the remainder of the time reviewing their notes and doing practice problems in preparation for the exam.

- **Tardy policy:** Students who are late to class will write their name in a designated section of the board next to the time they arrive. They have to make up the number of minutes of class they missed rounded up to the nearest 10 (so if they are up to 10 minutes late, they owe 10 minutes - if they are 14 minutes late, they owe 20 minutes, etc.) after school with that teacher. If students have a pass, they must still write their name on the board and tape the pass next to it or set their planner on my desk so I can review you it.

- **Late work policy/Monday 6th period:** All late assignments will get 20% off (whether it is five minutes late or two days late). They cannot be handed in more than three days late, or they will earn a zero. As soon as students earn two zeros in any given class, they will have to stay after school for "6th period" on Monday to study and complete work for that class. They will also get a phone call home. Missing assignments will need to be made up within 1 week and the parents will be notified for each missing assignment.

- **Absent policy:** Students who are absent from school are expected to check Google Classroom or the absent folder on their own immediately upon their return or before arriving to their specific class period. Students will have the number of days that they were absent to complete these assignments. For example, if a student is absent on Tuesday and they return on Wednesday, they will have one day, beginning when they return, to complete their work. So the assignments are due on Thursday at the beginning of class for this student. If a student is absent for a test, quiz, or lab, the student must communicate with Dr Chiscano upon return to make arrangements to make up the missed activity after school. All tests, quizzes, and labs must be made up within one week of the student's return to class or they will earn grades of "zero." If a test,quiz, or lab is missed for an unexcused absence (the student is a risk for not being able to make it up or may have an alternate assignment. Please note that labs are difficult to make up due to the safety precautions that must take place during these times. You are likely going to have to do a virtual lab or alternate assignment for a missed lab.

- **Tutoring Support:** Chem Café (chemistry tutoring offered by GPA chemistry teachers) will take place from 3:15pm-4:15pm on Tuesday and Thursday in conjunction with the other chemistry teacher. This is a time for students to enjoy a snack, work with friends on extra practice problems, and receive one-on-one tutoring. Dr Chiscano, Ms Keenan and qualified peer tutors will be available for 15-minute appointments. Students can sign up for time slots beginning at 3:15pm each day on a first-come, first-serve basis. If you need help, please notify us as soon as possible, do not wait until the day before a test.

Chemistry is complex and you need time to absorb the content and practice it to master it for a test.

- **Extra credit:** Extra credit opportunity is given to encourage learning and effort. It is given along the way and an extra credit tracker will be used. Do not approach Dr Chiscano at the end of the grading period or semester and ask for additional extra credit opportunities as a last-ditch attempt to raise your grade; instead, ask questions throughout the semester, establish a regular study schedule, and come to Chem Café if you are not understanding concepts so that you can learn and do better on the tests. Also use class time wisely, it is set up to help you study. Wasted class time is wasted learning time which can not be regained.
- **Test and quiz retakes:** In general, there will NOT be an opportunity to retake tests or quizzes. The grade you earn the first time is your final grade. If exceptional circumstances affected your performance on a test or quiz, you can meet with the Dr Chiscano or a counselor or trusted adult and, if deemed appropriate, get Dr Chiscano or the counselor's permission to retake a test or quiz.
- **Food policy:** There will be NO EATING in the chemistry classroom in compliance with state safety regulations. Students may not bring food or beverages to class. All items are to be left outside on the small table and can be picked up upon dismissal from the class.

Accommodations/Modification and Supports:
Any student who requires accommodations, modifications or additional supports should contact me as early as possible so that we can make appropriate arrangements.

GPA Student Expectations:

School-wide Attendance: All students are expected to be punctual and in their classroom seat, ready to learn for each day. Under California law (Ed. Code 48200) all children between the ages of six and eighteen are required to be enrolled and in regular attendance at school. GPA families know that school attendance is the critical first step to make sure that each student receives an education that will help them on their path to college. Students cannot learn what they need to be prepared for the next grade level, if they are not in school. The more absences from school a student has, the more they fall behind in their classes and the more difficult it will be to make it to college.

Planner Use: All students are expected to write all assignments in their GPA planner daily. Your first GPA planner will be provided by the school to support organization and time management.

Homework Completion: As a school working toward college preparation, all GPA students are expected to complete their daily/weekly assignments. Students who fail to complete their homework assignments on time, and are unexcused, will be required to attend lunch and after

school tutoring support daily until completed. Until all assignments are completed, students may not be eligible for athletics, clubs, and other extracurricular activities.

Electronic Device Policy: Cell phones, smart watches, and other electronic communication devices that can send and/or receive data are not permitted to be visible, heard, or used in any manner during school hours except by approval of school authorities. Any violation and/or disruption of the learning process will result in the confiscation of the item. Emergencies or messages that must be relayed to the student should go through the office during school hours. The parent/guardian must pick up the confiscated item from the Office of Student Conduct or the teacher.

Computer/Internet Usage Policy: Students may not use computers and/or the GPA network without proper adult supervision. The teacher/staff will choose resources on the Internet that are appropriate for classroom instruction and/or research for the needs, maturity, and ability of their students.

Acceptable Use-

- Access to any site that provides information relevant to current class assignments
- Access to college or university websites
- Use of teacher approved educational software (games, instructional tools, etc.)

Academic Integrity: Honest behavior is an expectation for all students at Gompers Preparatory Academy. Our goal is to create and maintain an ethical academic atmosphere. Acts of academic dishonesty that will not be tolerated at GPA are listed below:

- Cheating on any classroom assignment, test, or quiz
- Plagiarism - copying or representing another's ideas, words, or work as one's own, without properly citing the source. Plagiarism includes the misuse of published material, electronic material, and/or the work of other students. The original writer who intentionally shares his/her work for another to copy, without the permission of the teacher, is also engaged in plagiarism
- Fabrication (any falsification or invention of date, citation, or other authority in an assignment); theft or alteration of materials
- Unauthorized collaboration
- Unauthorized use of electronic devices

Students found in violation of GPA's Academic Integrity Policy will be disciplined appropriately, which may lead to formal suspension. Consequences for offenses may include, but are not limited to, detention, ***lowering of academic and citizenship grade and/or suspensions/exclusion from extracurricular activities***.

Standards/Format for Writing Papers - MLA Format:

The standard format for all papers follows the MLA formatting rules:

1. Typed, double-spaced: TIMES NEW ROMAN, 12 font, including title
2. Heading: 4 lines - UPPER LEFT corner

   Student name: "Sammy Gompers"
   Teacher name: Ms. Teacher
   Course name, period: English I, Period 3
   Date 06 February 2009
3. All pages numbered: upper right corner, last name and page number; no punctuation, no "p." or "pg."
4. Title: centered, upper and lower case
5. Work Cited/ Documentation Format: It is necessary to credit any source that is used in a paper or project. Plagiarism is considered cheating. All sources must be documented. Citing sources in a paper must be thorough and accurate. MLA formatting for in-text citations and works cited is mandatory.

Important Dates:

Quarter 1:

- Q1 Finals Week: October 23rd and 27th
- Parent Conferences: October 23rd - 27th
- End Date: October 30th

Quarter 2:

- Q2 Finals Week: January 22nd - 26th
- Parent Conferences: January 16th - 22nd
- End Date: January 31st

Quarter 3:

- Q3 Finals Week: April 9th - 13th
- Parent Conferences: April 16th - 20th
- End Date: April 23rd

Quarter 4:

- Q4 Finals Week: May 29th - June 1st
- End Date: June 26th

Student Signature : _____ Date: _____

Parent/Guardian Signature: _____ Date: _____

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The GPA Syllabus was inspired by: CSU Syllabus Template, Harvard Summer Program Syllabi, Stanford Teaching Commons and Lewis and Clark College.