Francisco Bravo Medical Magnet High School
Honors Chemistry AB 2022-2023
Mr. Michael A. Morgan

Course Outline

The purpose of this class is to examine the concepts and ideas of chemistry. It requires the use of many mathematical techniques and applications of technology as they relate to laboratory skills and data acquisition. The major difference between this class and the regular chemistry course is the level mathematical detail that is used in the course. The topics we will be covering this year are:

The Mathematical Basis of Chemistry
Atoms, Molecules, and Ions
The Periodic Table and Structure of Molecules
Chemical Reactions and Quantitative Changes in Reactions
Light and its Applications
The Kinetic Molecular Theory of Gases
Reaction Rates and Equilibrium
Acids and Bases
Thermodynamics and Electrochemistry
Organic Chemistry

Grading

All tests are worth 100 points. The final is worth 150 points. Homework will be assigned daily and will be collected at the beginning of the class. Homework assignments are worth 5 or 20 points depending on the assignment. Late homework will not be tolerated for any reason. There will be no make up work except for excused absences. I guarantee you that ignoring the homework will cause you to fail this class. The key to chemistry is problem solving and critical thinking skills. Labs are worth 20 or 30 points again depending on the lab.

Responsibility

It seems that many students have trouble understanding what this word means. You must have your homework ready to be turned in when you arrive at the room. Do not think that you may spend 15 minutes or even 15 seconds looking for where you have put it, finishing one question, stapling pages together, or even writing your name on it. Work is due when you arrive at the room. In addition this same concept extends to bringing the materials, calculators, and tools that are necessary for you to do your job, the job of being a student. Remember that while you are in my course it is my objective to prepare you for the real world and the consequences that you face will be of the same level as those in the real world. If you come without your tools, you can't work, and hence will not be paid for that day. You will not receive credit for the work assigned and or collected that day.

Integrity

Integrity is a vital part of any course. I encourage you to work with others and get help as often and as much as you wish. Active participation in a student organized study group is highly encouraged. In addition I will be glad to work any problem for you during my office hours. I however demand that you credit any person who helped you with a problem. This will not be counted against you but will provide proper and professional recognition, a trait I hope you will carry on in your scientific careers. Failure to do this will only hurt you in your future work. Because of the high rate of cheating there will be several restrictions placed on you as students. Any student found or suspected of cheating will be subject to the cheating policy enforced by the Dean of Students. The burden of proof for cheating does not lie with the instructor. These rules will be enforced for suspicion of cheating also.

Organization

I post a schedule every week via the web that lists your homework. You should copy this into your school issued planner before the week starts. We will have planner checks. I will never accept the excuse that you didn't know an assignment was due. All assignments are listed one week in advance. *A separate binder for Honors Chemistry is necessary.* You should have dividers with the following headings:

1. Lecture Outlines	2. Handouts	3. Homework
4. Labs	5. Tests	

You should also have a "Completed Homework Folder" where you keep your assignments that are ready to be turned in for grading.

The lecture notes for this course are prepared by the instructor and distributed as an outline. The student fills these in during lecture. This has proven to be very effective in keeping students on track during class and while preparing for a class that you missed. Keep a good collection of these and review them often.

Classroom Rules:

Above all I expect and demand that everyone in the room behave in a responsible and courteous manner. We will show the utmost respect for the property of others and the school. The two most important words now entering your vocabulary are discipline and respect.

A) Arrive on time and ready to work. The materials that you will need to available everyday include a three-ring notebook, paper, graph paper, pens, pencils, and a scientific calculator.

B) Do all of your work! Turn in your assignments on time! I do not accept late work. Make up your work from absences immediately. Expect to make up tests on your own time. This is taken care of at 7:00 AM.

Honors Chemistry
Tentative Syllabus
Fall Semester 2022-2023
Michael Morgan

Week	Unit	Topics	Labs
1) 8/15	1	Metrics	Density of Water
2) 8/22	1	Math/Density	Density
3) 8/29	1*	Math/Graphing	Aluminum Foil
4) 9/5	2	Properties/ Change	Mixtures Activity/Four Liquids
5) 9/12	2	Formulas/ Nomenclature	Chromatography/Ionic Formulas
6) 9/19	2*	Nomenclature	Chemical Change
9/26	3	Chemical Equations	Balancing Models/Activity Series
10/3	3*	Precipitation Reactions	Johnstone's Triangle/Precipitation
7) 10/10	4	Moles	Counting Atoms
8) 10/17	4	Formula Problems	Iron and Copper
9) 10/24	4	Stoichiometry	Stoichiometry
10) 10/31	4*	Stoichiometry	Excess Reactants /Hydrates
11) 11/7	5	Atomic Structure	Abundance of Isotopes
12) 11/14	5*	Light	Hydrogen Spectrum
13) 11/28	6	Periodic Table	Elements Lab
14) 12/5	6*	Periodic Table	Periodic Videos Lab
15) 12/12	1-6	Finals	

* Indicates where a unit test will be placed.

Note that dates are not exact.

Honors Chemistry/Tentative Syllabus/Michael A Morgan
Spring Semester 2022-2023

Week	Unit	Topics	Labs
1) 1/9	7	Bonding	Hydrogen Bonding/IMF Lab
2) 1/16	7	Lewis Structures	Model Building
3) 1/23	8	Gas Properties	Boyle's Law
4) 1/30	8	Gas Laws	TBA
5) 2/6	8	Gas Stoichiometry	Chemical Properties
6) 2/13	9	Rates of Reactions	Film Can Lab/Temperature and Rate
7) 2/20	9	Kinetics	Reaction Rate /Iodine Clock
8) 2/27	10	Chemical Equilibrium	Le Chatelier's Principle
9) 3/6	10	Mathematical Equilibrium	Q Lab
10) 3/13	11	Acid/Base Properties	pH Lab/Strong Acids
11) 3/20	11	pH, Weak Acids, Salts	Microtitration
12) 3/27	11	Titration	Titration Lab
13) 4/10	12	Heat/ Phase Changes	Heating Curve
14) 4/17	12	Hess's Law	Heat of Fusion
15) 4/24	12	Thermodynamics	Hess' Law
16) 5/1	13	Redox Reactions	Redox Agents
17) 5/8	13	Electrochemical Cells	Cell Lab
18) 5/15	14	Functional Groups, Names	Organic Compounds/Isomers
19) 5/22	14	Organic Reactions	Modeled Reactions/ Esterfication
20) 5/29	14	More Organic Reactions	Functional Groups
21) 6/5		Finals	

PERIOD _____

Please return this signed page.

I have read the above rules and understand that I must adhere to them if I am to be a member of this class. I understand that if I do not adhere to these rules I will not be re-admitted to the class until a parent conference is held. Parents wishing to discuss any matters relating to their child's education may contact Mr. Morgan any morning between 6:45 and 7:45 at 323 227-4400 ext 1503. In addition you may leave messages for Mr. Morgan at the office.

_____
Students Name (Print)

_____
Students Signature

_____
Parents Name (Print)

_____
Parents Signature

_____
Parents Phone Number

_____
Home Language

Please provide a US Mail address where Mr. Morgan can send notes to parents:

Address _____

City, State, ZIP _____

IF your parent has an electronic mail address please list it here:

_____