

Francisco Bravo Medical Magnet High School
Honors Chemistry A
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. Many current research areas will be emphasized to provide a background necessary for student research. The major difference between this class and the regular chemistry course is the level of research that is expected of students and the mathematical detail that is used in the course. The topics we will be covering this semester 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

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. Late homework will not be tolerated for any reason. There will be no make up work except for excused absences.

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.

Cheating

Cheating of any type will not be tolerated. If you are caught or suspected of cheating on a homework, lab or test you will be subjected to the schools cheating policy to the fullest extent. The burden of proof does not lie with the instructor.

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) Good attendance is of the utmost importance. Three tardies will result in a U in work habits for the report card.

C) 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.

D) Be aware that the rules of the school apply at all times. I will require parent conferences for students who prove to be disruptive.

**Honors Chemistry
Tentative Syllabus
Fall Semester 2017-2018**

Week	Unit	Topics	Labs⁴
1) 8/14	1	Observation Skills	Density of Water
2) 8/21	1	Metrics/Density	Density
3) 8/28	1	Math	Aluminum Foil
4) 9/4	2	Properties/ Change	Four Liquids/ Chromatography
5) 9/11	2*	Formulas/ Nomenclature	Chemical Change
6) 9/18	3	Equation Writing	Activity Series
7) 9/26	3*	Precipitation Reactions	Precipitation
8) 10/2	4	Moles	Counting Atoms
9) 10/9	4	Formula Problems	Iron and Copper
10) 10/16	4	Stoichiometry	Stoichiometry
11) 10/23	4*	Stoichiometry	Excess Reactants /Hydrates
12) 10/30	5	Atomic Structure	Abundance of Isotopes
13) 11/6	5	Atomic Structure	TBA
14) 11/13	5*	Light	Hydrogen Spectrum
15) 11/27	6	Periodic Table	Elements Lab
16) 12/4	7	Periodic Table	Periodic Videos Lab
17) 12/11	1-7	Finals	

* Indicates where a unit test will be placed.

Note that dates are not exact. Vacation days will offset the schedule by about 1/2 a week.

**Honors Chemistry/Tentative Syllabus
Spring Semester 2017-2018**

Week	Unit	Topics	Labs
1) 1/8	7	Bonding	Hydrogen Bonding
2) 1/15	7	Lewis Structures	Model Building
3) 1/22	8	Gas Properties	Boyle's Law
4) 1/29	8	Gas Laws	Absolute Zero
5) 2/5	8	Gas Stoichiometry	Chemical Properties
6) 2/12	9	Rates of Reactions	Temperature and Rate/Reaction Rate
7) 2/19	9	Kinetics	Iodine Clock
8) 2/26	10	Chemical Equilibrium	Le Chatelier's Principle
9) 3/5	10	Mathematical Equilibrium	TBA
10) 3/12	11	Acid/Base Properties	pH Lab
11) 3/19	11	pH, Weak Acids, Salts	Microtitration
12) 4/2	11	Titration	Titration Lab
13) 4/9	12	Heat/ Phase Changes	Heating Curve
14) 4/16	12	Hess's Law	Heat of Fusion
15) 4/23	12	Thermodynamics	Hess' Law
16) 4/30	13	Redox Reactions	Redox Agents
17) 5/7	13	Electrochemical Cells	Cell Lab
18) 5/14	14	Functional Groups, Names	Organic Compounds/Isomers
19) 5/21	14	Organic Reactions	Modeled Reactions/ Esterfication
20) 5/28	14	More Organic Reactions	Functional Groups
21) 6/4		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:
