

Chemistry 431

2006 - 2007

Faculty Name: Mrs. Barry

Contact: cbarry@mpsd.org

Room Number: 212

Course Description

Welcome to chemistry! This is the class that many dread, but those who complete it should feel proud that they have successfully accomplished a year of studying chemistry. This is an advanced college prep chemistry course that is designed for those students who will go on to college and may major in science or an affiliated field. If you take chemistry freshman year in college, your year will be much easier for having completed this class, and everyone knows that the freshman year in college is challenging enough!

This class meets four times in a six block class cycle, allotting time for experimental methods of investigation and laboratory practice. The material is presented with a traditional approach using a variety of methods. The focus will be on exploring and investigating as you develop an understanding for some of the major concepts in chemistry. The students will be directly involved in the activities of science through the laboratory program. Matter-energy relationships, atomic theory, the periodic law, acid-base chemistry, the properties of the physical states of matter and quantitative chemistry are the major topics covered in this course.

Learning Outcomes

Students Who Are Successful in This Course are Prepared For the Following Courses

High School Level:

- physics 441, anatomy and physiology, marine biology

Textbooks & Reading Materials

Books

Davis, Raymond E.. (30 August, 2004). *Modern Chemistry*. Holt Rinehart & Winston.

Behavior Expectations & Classroom Conduct

- You will be expected to complete all assignments on time, and to participate actively in class daily. Behavior that interferes with any students learning is not permitted.

To be successful in chemistry, regular study is required. This class is like a math class or foreign language class (some of the material you learn will sound like a foreign language) in that knowledge of the each section builds upon what was learned in the previous section. The study of chemical reactions is extra difficult if you do not master chemical formulas. Most chapters build on the previous chapter. It is important that you develop good study habits from the beginning. If you need extra help, I will be available one to two days each week after school (to be announced).

The material will be presented in small manageable concepts with a variety of learning methods to try to reach every student. However, the process of learning is primarily your responsibility. You must challenge yourself in ways that you have not had to in previous classes.

The ability to access the internet via a home computer is a plus as there are sites to practice some skills which add to the leaning experience. Ask me for sites or google the topic. There are many chemistry games to play which will help you build skills and learn material.

In summary, my expectations are fairly simple. Treat me with respect, and I will do the same. I expect my students to act in a responsible manner and do their work completely and honestly with their maximum effort. If you do the best you can every day, and treat everyone respectfully, we will have a pleasant year together. I follow the rules set forth by administration. For those of you who need reminders of appropriate classroom behavior, I have listed some key points.

Classroom behavior reminders:

It is expected that you will attend all classes and arrive on time.

Bring your covered textbook, three ring binder notebook, a calculator, and something to write with to every class. Special materials may be required, but you will be given advanced notice to obtain these.

Be in your seat and ready to begin when the bell rings and have your homework on your desk.

Do not talk when I am leading the class or when your classmates are participating in class. I consider that rude behavior.

Food and beverages are not allowed because this is a science lab.

Cell phones are not allowed during school hours, so they are not allowed in class, ever, even as a calculator.

I Pods and other sound devices that are not allowed during school hours are not allowed in use in my class.

Do your homework on your own, on a regular basis, and bring it to class with you. (I dont care where it is if it is not here). Review the material from the previous class before you arrive each day.

Below are my policies on notebooks, homework, and makeup work. Read them carefully, as I will refer back to this document if we have a disagreement.

Makeup work

This is an area of stress for both students and teachers, so I feel it is necessary to establish some guidelines for absences.

If you are absent, you are responsible for the work you missed. You must get the class notes from another student. Call a friend or your lab partner before you come back to school to find out what is due the day you return. You are expected to complete your work for the day you return.

If you are absent the day before a test or quiz, you are expected to take it the day you return. No exceptions.

If you are absent for more than one class (that should only happen under extraordinary circumstances) you are expected to make up the work per the student handbook.

If you are absent for an extended period, you should contact your guidance counselor so that work can be provided for you at home. You will be expected to make up your work with a week of returning. I give you more time than the student handbook and more time can be arranged for extraordinary circumstances. I find many students have difficulty catching up when they are absent, so I must have some time limits. The longer students delay taking a test or quiz, the lower the grades. If you take a test several weeks after finishing a chapter, the grade usually reflects the time that has passed. These rules are here for your benefit.

If you know in advance you will be out, especially just before a vacation, take any tests or quizzes that you will miss early. Otherwise, you will be expected to take the test the day you return, especially if you are out the day before a vacation.

If you make an appointment with me and cannot keep it, especially after school, please contact me via a note in my mail box or voice mail.

I find makeup work one of the hardest issues for students. Remember, you are responsible for any work you miss. Work not made up within reasonable time (longer than 10 school days) will receive a zero.

Homework

Most nights you will have homework. You will be asked to read your textbook, answer questions, solve problems, or practice a new skill. It is important that you spend some time reviewing the prior material and practice new skills or solve problems to improve and learn. It is difficult for me to proceed if you have not prepared.

Homework is due at the beginning of the class. You must keep a separate section for homework in your notebook. I use a different stamp for each chapter. All stamped homework is collected on the day of the test. Late homework is not accepted, unless you have been absent. Unstamped homework does not count. Simply show me your makeup work when I come around to check homework and I will stamp it for you. You will earn about 15% of your grade from homework. I find that students who do their homework do very well in this class. Experience shows that students who routinely skip homework usually have lower test and quiz grades. You are allowed to miss one homework each term without penalty, but if you do every homework you will receive credit for all assignments. Late homework is not accepted.

Lab reports and projects:

Labs and other projects are due when assigned. Late work and labs are reduced 20% for every school day it is late. After five school days, your grade will be zero.

Missed labs must be made up within one week after they are completed in class on my after school days or during a study if I and the room are available. You must bring your lab partner with you to walk you through the instructions for the lab. Once the lab materials are put away, I will not allow lab makeups.

Notebooks

A three ring binder is required due to the large volume of handouts. They are to be neat and well organized. To learn chemistry, you must practice, and a notebook is essential. Your binder should include:

Class notes with date

Notes on labs and demonstrations

Notes on videos

Sample problems

Handouts

Graded assignments including tests and quizzes

Labs

I recommend that you use dividers to separate materials by chapter. At the beginning of every class write down today's date, as well as on every handout you receive. That will clarify any questions you may have as to whether or not you need to review a sheet when studying for a test. Additional suggestions I have found helpful over the year: number each page in the upper right hand corner. Do this at the end of every class. Should your notebook encounter a mishap, you will be able to put it back in its original order. Notebooks are checked quarterly, and when I check notebooks I will ask you to find certain items by date and you will be expected to locate them.

Classroom and lab conduct

A chemistry lab is a potentially dangerous place and must be treated with respect. With that in mind, movement should be at normal speed, conversation should be at normal volume. NO eating or drinking is allowed during a lab. Safety procedures and teacher instructions are to be followed at all times or you may be removed from the lab and earn a zero.

Misuse of safety equipment will result in removal from the lab and a non-negotiable zero.

Makeups are not allowed for inappropriate lab behavior.

You will work with your assigned lab partner and may not make your own groupings. Doing so will result in a zero.

Conduct and cleanliness are part of every lab grade. Leave your work area neat and clean. Do not throw trash in the sinks. Dispose of chemical as instructed by your teacher. Do not throw them randomly down the sinks or in the trash.

- The classroom is a community and works well when everyone understands the expectations and abides by them. The classroom atmosphere is determined by the students. I respond as necessary to your behavior and responses. You make it either a positive environment or one that is unpleasant. It is your decision. Think before you act.

Grading Policies

Grading

Your term grade will be the average of the following:

Tests and quizzes 60-70 %

Labs 10-20%

Homework 10-20%

Class cooperation 10-15%

Notebook 10-15%

Cheating will not be tolerated. This includes , but is not limited to, giving or receiving answers or work on a test or quiz, removing test or answers from the classroom, plagiarism, (even homework), and unreported knowledge of these activities. Working together does not mean copying. Remember that plagiarism involves presenting any work that is not you won without proper credit to the true author. The penalty for cheating will be a grade of zero on the work in question, and forfeiture of make up privileges for that work. Also, parents, administration, and coaches may be notified.

Course Schedule

Week #/ Dates:	Major Topics	Assessment(s) (Quizzes/Exams)
	<p>Syllabus Chemistry 431</p> <p>Topic Days</p> <p>Introduction 2</p> <p>Measurement 8</p> <p>Matter and Change 5</p> <p>Atomic Structure 7</p> <p>Electron Configuration 6</p> <p>Periodic Table 7</p> <p>Bonding 8</p> <p>Chemical Names and Formulas 7</p> <p>Chemical Quantities 8</p> <p>Chemical Reactions 8</p> <p>States of Matter 5</p> <p>Gas Laws 5</p> <p>Solutions 5</p> <p>Acids and Bases 4</p>	