

MONTE VISTA CHRISTIAN SCHOOL
SCIE 3521, Chemistry Fundamentals
Course Syllabus

Course Description:

This course will equip students with general knowledge of general chemistry, physical chemistry, earth science, and environmental science. Students will learn about being good stewards for God in both this physical world and in their own personal lives. Students taking this course will gain experience and become familiar with laboratory work through regular experiments and demonstration.

Course Objectives:

Upon completion of Chemistry Fundamentals, students will be able to:

1. Demonstrate proper use of lab equipment and techniques
2. Make and record accurate observations
3. Organize information, evaluate, interpret and communicate experimental results
4. Write balanced equations in terms of atoms, molecules, and moles
5. Exhibit skill in the use of the periodic table in the following ways:
 - classifying elements according to their properties
 - predicting and writing chemical reactions
 - writing electron configurations and showing intermolecular forces
 - determining the subatomic make-up and mass of elements
6. Demonstrate through problem solving and correct use of nomenclature and understanding of the following:
 - scientific notations and significant figures
 - gas reactions
 - acid-base reactions
 - chemical equilibrium
 - solution concentrations
 - oxidation-reduction reactions
 - Organic molecules
7. Develop and in-depth knowledge of the origin and use of radioactivity in our growing world of energy needs.

Text

Your necessary digital texts for this class will be part of a “Required Course Materials Fee” thru the EdTech bookstore. This is a bundle purchase of digital texts for your full schedule of classes and will be available for purchase after 7/18/16. For further instructions please visit the [16-17 School Year](#) icon on the MVCS homepage. Please note: some courses may require additional purchases outside of the course materials fee.

Prerequisites:

None.

Course Outline:

Unit 1: Atoms
Unit 2: Solubility
Unit 3: Chemical Reactions
Unit 4: Redox
Unit 5: Carbohydrates
Unit 6: Moles
Unit 7: Gas
Unit 8: Electromagnetic Radiation
Unit 9: Acid and Bases
Unit 10: Air Pollution
Unit 11: Chemical Reaction
Unit 12: Nuclear Radiation
Unit 13: Organic Chemistry

Grading:

<u>Grade Book Categories</u>		<u>Semester Weighted Configuration</u>	
Assessments	60%	Quarter	40%
Homework/Lab Assignments	40%	Quarter	40%
		Final Exam	20%

Category Explanation:

- Assessments – 60%
 - This category includes all unit tests and quizzes. Some projects and laboratory write-ups may be included in this category according to teacher discretion. Students may view the exact category online through FOCUS.
- Assignments – 40%
 - This category include all daily homework. Some projects and laboratory write-ups may be included in this category according to teacher discretion. Students may view the exact category online on FOCUS.

Content work expectation:

Students are expected to spend about 30 minutes a day working on anything related to this class. This might include working on homework, reading the textbook, creating flashcards, and studying for tests.

High School Standard Grading Policy:

Please refer to the policy and procedures posted online in our Parent-Student Handbook.

Class Policies:

The following class policies are non-negotiable. Please see the instructor if you have any concerns with your ability to follow these policies.

1. Respect your peers, teachers, and school property to create an enjoyable learning environment.
2. Do your own creative work.
3. Stay focused on your creative work.
4. Come to class prepared, on time and excited to learn.

Classroom Expectations:

Students are expected to follow these rules:

1. Be seated at the beginning of class.
2. Raise your hands first and wait until called upon before speaking.
3. Use the bathroom before class starts.
4. Turn in any homework at the beginning of class.
5. Headphones or earphones will not be used during class.

School Policies and Expected Student Learning Results (ESLRs):

Students are subject to all academic policies of the school as found in the Parent-Student Handbook. Furthermore, it is each student's responsibility to read and follow all academic policies of Monte Vista Christian School. In addition to addressing each ESLR every year, we target a specific ESLR each academic year for particular focus.

Tips for the Students:

Attendance and Tardies:

It is important that you be in class. Your participation is valued. Nothing can take the place of being in class, hearing the lectures, seeing the demonstrations and videos, doing the laboratory experiments and interacting with your classmates. If it is necessary for you to be absent from class, it is your responsibility to get the notes from a reliable classmate. You will be held responsible for everything that went on in class. You will also need to pick up or access handouts that were given out. Follow your chapter outline and do the assigned reading and homework. Unexcused absences are reported to the office and will affect your grade.

Make Up Work:

Make up work is only accepted from students who have excused illnesses or absences. Being gone from class due to school activities, planned appointments or family vacations, requires your work (homework, make up labs, and / or exams) to be turned in **before** your absence. If you do not turn in your work on or

before the due date, you will receive a 0% for the work. However, the work will still need to be done and placed in your notebook to receive full credit on your notebook.

Dry Labs:

Because of space and time, a lab can only be run during your designated class period on the day it is scheduled. If you are not in class or if you come to class unprepared to complete the lab, you will be unable to do the “hands-on” part of the lab. The next best thing to do is a dry lab. This is done by following the “Dry Lab Format.”

When is the Dry lab due?

If you were in class, but came without materials or properly dressed, the dry lab is due the next day along with everyone else’s lab. If you are going to be gone due to a pre-planned absence, the dry lab is due before you leave on your outing. If you were sick on lab day, you get 1 day for each day you were absent to get your dry lab turned submitted.

Lab Safety Policy:

The following regulations have been set forth by the State of California. The law requires the class instructor to remove from the lab any person who is not following the regulations. If a student is asked to “sit out” the lab, because of disregard to the safety of themselves or others, it will affect their grade for that lab. The best that student can do is a makeup lab. This makeup lab is due the same time all the other students are to have their lab reports in. No extra time is given. Follow your chapter outline to know when labs are scheduled, then prepare carefully for your lab.

Tests:

If you are in class on exam day, you are expected to be ready to take the exam. Missing the review session is no excuse. If you are absent on exam day, the day you return to class you must take the make-up exam. Exam dates are announced at least one week in advance, so students can plan their schedules accordingly. If a student has been gone from school for several days due to illness, they should come to the teacher to make arrangements for a time to take the exam.

Road to success:

To be successful in this class, try following this advice:

1. Do not be distracted during class
2. Spend time daily memorizing any vocabulary and then move on to any concepts.
3. Do not wait until the night before to study for tests. Preparing a week in advance is normal.
4. Seek academic assistance if you need any help, this can be as easy as emailing your teacher.