**Chemistry II Syllabus, 2013-2014** Mr. Smith

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**Course Description**

This course explores different branches of chemistry from that studied in the introductory course. It starts with a review of Atomic Theory and Stoichiometry. The course is largely lab based. It is challenging and exciting and recommended for all students interested in continuing in science, medicine or related careers. **Outcomes:** By the end of this course, you should be able to:

* Perform qualitative and quantitative experiments, plot and interpret the data to show the regularities or trnds involved and account for any uncertainties
* Describe how nuclear reactions occur and the many uses for radioactive materials
* Explain covalent, metallic, and ionic bonding, and how it is related to atomic structure.
* Understand how gases depend on pressure and temperature and what the atmosphere is made of and how it responds to changes
* Determine concentrations of solutions and predict how different solutions can affect the environment
* Determine if solutions are acids or bases and show how they affect the environment
* Understand the structure of polymers and how they are used
* Determine energy changes in chemical reactions
* Understand how oxidation/reduction reactions are involved in electrochemical changes.

**Course Outline**

**Semester** **Units**  
1 Water and Solutions  
 Materials: Structure and Uses  
 Petroleum: Breaking and Making Bonds  
 Air: Chemistry and the Atmosphere  
  
2 Industry: Applying Chemical Reactions  
 Atoms: Nuclear Interactions  
 Food: Matter and Energy for Life

Independent projects may also be used according to student interest, time, and materials available.

**Student Requirements**

* Complete and pass daily work for each unit.
* Pass unit tests
* Perform the experiments and submit written reports
* Complete and pass independent project work
* Pass a semester exam at the end of each semester.
* Calculators are required.
* A typed paper may be required.

**Grading Criteria**

93 - 100% = A  
85 - 92% = B

76 - 84% = C

70 - 75% = D

Below 70% = F

**Quarter Criteria**

Tests 50%

Labs, Homework,   
and Quizzes 50%

**Semester Criteria**

First Quarter 40%

Second Quarter 40%

Final 20%

**Absence Policy**

1. Students with excused absences will be allowed to make up the work. It is your responsibility to get the work.
2. Tests – If you have an excused absence the day of the test, it is your responsibility to schedule a time to come in and take the test as soon as you get back or before you leave. Unexcused absences will result in an automatic zero.
3. Review Days – If a student is absent the day of a scheduled review, they will be expected to take the test. If new material is taught the same day, the student will have two days to make up the test.

**Textbook:**

*Chemistry in the Community* 4th ed © 2002. American Chemical Society published by W.H. Freeman & Co

**Expectations**

1. The *Mukwonago Way*:
   1. Be Responsible
   2. Be Respectful
   3. Safe
   4. Be on Time
2. **Academic Integrity**: Cheating, Fraud, and Plagiarism are spelled out clearly in your Student Handbook and will not be tolerated. If a student is caught, the following actions will be made, as stated in the Student Handbook (page 39)
   1. **1st Offense**: A score of zero, a disciplinary referral, and a meeting with the AP.
   2. **2nd Offense**: A score of zero, parent contact, and conference with the principal.
   3. **3rd Offense**: An “F” in the course, and inelegibilty for multiple student opportunities, including: honors pass, valedictorian, salutatorian, honor student, any scholarship controlled or sponsored by the school district.

**Disciplinary Actions**

1. Tardiness: refer to student handbook
2. Misbehaving and endangering others in the lab and classroom is very serious. Such behavior will not be tolerated and the following consequences will be implemented.
   * Strike One: Verbal Warning. You will be asked to stay after class for a brief discussion with Mr. Smith.
   * Strike Two: A call home to parents.
   * Strike Three: Referral to the administration, parents contacted, and possibly missing out on some labs and activities.