# **Chemistry Syllabus 2014 - 2015**

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## **Required Texts and Materials:**

* Textbook: Living by Chemistry
* Laboratory Book: Lab Guide Sheets provided by instructor
* Scientific Calculator
* Notebook & Folder OR 3-Ring Binder
* **www.oakwoodmathscience.weebly.com**

## **Description:**

This course will cover concepts and theories relating to the scientific field of Chemistry. Students will have a basic understanding of matter and the elements, atoms, bonding, chemical reactions, and nuclear chemistry, among other concepts. Knowledge will be gained through reading, homework, in class instruction, laboratory experiments, and models.

*Analysis, Inquiry, and Design*

* Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.
* Students will access, generate, process, and transfer information using appropriate technologies.

*Interconnectedness: Common Themes*

* Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.
* Energy exists in many forms, and when these forms change energy is conserved.
* Energy and matter interact through forces that result in changes in motion.

*Chemistry Core topics*

* Atomic concepts, periodic table, moles/stoichiometry, chemical bonding, physical behavior of matter, kinetics/equilibrium, organic chemistry, oxidation-reduction, acids, bases, and salts, nuclear chemistry.

Handouts and materials given in class will only be given out once. Use your notebook to collect all of your materials for this class. All materials given out in class will be made available through the classroom website: **www.oakwoodmathscience.weebly.com**

## **Classroom Management and Activities:**

1. Classroom instruction will start promptly at the beginning of the period.

2. Disruptive student discussions or actions will not be permitted.

3. Students are expected to bring their notebook, pen or pencil, and a scientific calculator to each class. Students will be informed when to bring their textbook to class. Laptop computers must be turned off during classroom instruction unless authorized by the instructor and ASC.

4. 10% of the student’s trimester grade will be based on the student’s class preparedness, class participation, and class conduct.

5. Classroom lectures will be supplemented with lab demonstrations and DVD presentation.

## **Laboratory Activities:**

1. Students are expected to read the Laboratory Sheets given in class and follow all safety rules.

2. Laboratory periods will be scheduled at my discretion and all students are expected to dress in appropriate lab attire. No shorts, open-toed shoes, or tank tops. If a student is not dressed in appropriate lab attire, he or she will be required to obtain proper attire before beginning the lab activity. A 5% deduction will be implemented for each lab a student is not properly dressed for.

3. Students are expected to read the assigned lab, and organize their lab notebook according to the method of scientific investigation before coming to the laboratory.

4. Laboratory notebooks will be graded according to the following criteria:

* The lab report contains all required parts of scientific investigation (25%)
* The Conclusion answers the Objective or Hypothesis of the experiment (25%)
* Data and Data Analysis are correct and accurate (25%)
* All sections of the lab report are legible and neat (25%)

5. If a student misses a lab for a legitimate reason, he or she may make up the lab at a later date at the instructors discretion.

**Tests and Quizzes:**

1. Students will be tested upon the completion of each textbook unit.
2. Students will be quizzed weekly to ensure understanding of content.

**Homework:**

1. Homework will be assigned after each class. Homework assignments will be posted on the classroom website each day.

2. Students are expected to hand in their homework assignments on the date due. If the student is absent for a legitimate reason, he or she must turn in his or her homework assignment when returning to class.

3. **Late homework assignments will receive a 10% point deduction for each day late. Homework will NOT be accepted after the 3th day from its due date. Days late are consecutive, not based on class period.**

## **Evaluation:**

The student’s trimester grade will be based on the following:

* Unit Tests/Quizzes 50%
* Laboratory Assignments 25%
* Homework Assignments 15%
* Class Conduct and Preparedness 10%