

*632: Advanced Chemistry*

**North Hunterdon High School**

**2016-2017 Syllabus**

**Instructor:** Mrs. Post and Mr. Ruscher

**E-mail:** [apost@nhvweb.net](mailto:apost@nhvweb.net) and jruscher@nhvweb.net

**Website:** http://www.nhvweb.net/nhhs/Science/apost/

**Google Classroom:** classroom.google.com (course code: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

**Phone:** (908) 713-4199 *ext.*4245 (e-mail is preferred as a means of contact)

**Office:** 202

**Extra Help:** After School - Monday, Wednesdays, and Fridays from 2:30-3:10

Extra help in the Nucleus (science resource center) is available throughout the day

**Course Objective:**

The development of the scientific method is presented along with the basic relationships of chemistry. Qualitative and quantitative analytical thinking will be developed based on laboratory experiences. This course is intended for students planning to attend college and focus in an area other than science, or who desire an academically challenging course.

**Course materials:**

* Text book: Modern Chemistry (by Sarquis, Sarquis)
* Online Textbook: **http://my.hrw.com** (username: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ password: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
* Three ring binder (2 inch) and paper
* Scientific or graphing calculator (must be able to clear its memory before quiz/test)

**Absences:**

* **Make-up Work** – students have 2 school days to make up homework assigned the day you were absent
* **On the day of a test/quiz** - student must schedule a make-up date within one week of the missed assessment (extraordinary circumstances must be approved by the teacher)
* **On the day of a lab** – students will be **e**xcused from one lab activity per marking period due to an excused absence. If more than one lab is missed in a given marking period, a make-up lab must be completed. [Note: some labs are mandatory and will not be able to be excused.]

**Assignments:**

* **Homework will be assigned almost every day:**
  + Typically, homework will be graded based upon completion. However, depending on the assignment, it may be collected and graded for accuracy.
  + All assignments are to be completed with integrity. Any students found exchanging, copying, or turning in otherwise fraudulent assignments will receive a **zero**. Guardians, and/or administration may be contacted.
* **Late Assignments:**
  + Late homework assignments will not be accepted since they are reviewed in class daily.
  + Late lab reports, projects, or other long term assignments will **lose 10% credit for each day they are late**. These assignments will not be accepted after 1 week late (at which point they have lost 50% credit before even being graded!).

**Laboratory:**

* No student can participate in any lab activity without a **signed safety contract** and **proper** **laboratory attire**.
* Make up labs must be scheduled with the teacher. Due to the nature of the experiments, not all labs can be made up.
* Lab partners will be assigned for lab activities. New lab groups will be created several times throughout the school year.

**Evaluation:**

* Grades are determined using a **total points system.** The percentage is then converted to an alphabetical letter as outlined in the student handbook. Grades in this class are earned; all scores reflect the effort, understanding, completeness, quality, and accuracy of work.
* As a reminder**, rounding is not guaranteed**. The student’s participation, attitude, and quality of work will determine if rounding is merited.
* Methods of evaluation in this course shall include, but not be limited to, the following:
  + Homework/classwork - assigned daily (5-30 points)
  + Class Participation - at the teacher’s discretion (1-15 points)
  + Quizzes - announced and unannounced quizzes will be given periodically (20-45 points)
  + Quests/Tests - always announced in advance and given at the end of each unit (45-100 points)
  + Laboratory - experiments performed in class with follow-up questions/calculations (20-60 points)
  + Formal Lab Reports – written report graded with a rubric (50-100 points)
  + Written Reports, Oral Presentations, Group Work, and Special Projects (35-65 points)
  + Final Exam

**CP Course Curriculum:**

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| **Chapter** | **Topic** |
| N/A | Lab Safety (MP1) |
| 1 | Introduction: Matter and Change (MP1) |
| 2 | Measurements and Calculations (MP1) |
| 3 | Atomic Theory and Structure (MP1) |
| 4 | Arrangement of Electrons in Atoms (MP1) |
| 5 | Periodic Table & Trends (MP2) |
| 6 | Chemical Bonding (MP2) |
| 7 | Chemical Formulas and Compounds (MP2) |
| 8 | Chemical Equations and Reactions (MP3) |
| 9 | Stoichiometry (MP3) |
| 10 | States of Matter (MP3) |
| 16 | Reaction Energy &Thermochemistry (MP3) |
| 11 | Gases (MP4) |
| 12 | Solutions (MP4) |
| 17 &18 | Reaction Kinetics (MP4) |
| 15 & 15 | Acids and Bases (MP4) |
| 21 | Nuclear Chemistry (MP4) |
| 22 | Organic Chemistry (MP4) |

