

Roanoke Valley Governor's School for Science and Technology
RVGS Chemistry Syllabus 2023-2024
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I. Course Information

a. Course Description

RVGS Chemistry explores the fundamental laws, theories, and mathematical concepts of chemistry. The major themes include the study of matter, its composition, structure, and properties, the changes they undergo, and the flow of energy that accompanies those changes. There is an emphasis on the use of technology for data collection and analysis. Virginia chemistry standards of learning are covered during the course.

b. Gifted education strategies

Technology use is integrated throughout the course, including the use of Vernier probes and sensors and LoggerPro in the laboratory. Cooperative learning is emphasized through group collaboration on laboratory investigations (but not on lab reports). Students will apply knowledge attained to make connections between chemistry in the classroom and the real world.

a. Text, Printed Resources, and Media Resources

- i. Text:** *Chemistry – Atoms First*, 2nd edition, online (openstax.org). A hard copy book can be requested if desired.
- ii. References:** Chem 101 (online chemistry homework & assessment software)
- iii.** *Handbook of Chemistry and Physics*, CRC Press (various editions)
- iv.** *The Merck Index*, Merck & Company (various editions)

II. Grading Policy

a. Grading Scale

100-90%	A
89-80%	B
79-70%	C
69-60%	D
59-0%	F

b. Types of Evaluations

- i. **Tests:** Tests will be given periodically to assess work covered over an extended period of time. Material included on a given test will have been previously assessed using other formats. Generally, four or more tests (including a final exam) are given per semester. If you miss the day prior to a test, and no new material was covered that day, you will take the test the day you return to school. No one test will count for more than 10% of the semester grade.
- ii. **Quizzes:** Quiz formats may include both traditional (paper and pencil) quizzes and performance-based assessments. It is the student's responsibility to arrange an appointment outside of class time if additional one-on-one time is needed with the instructor to sufficiently master the relevant material.
- iii. **Labs:** The laboratory experience will be the means by which many topics will be introduced. Students will be expected to read all material pertinent to the upcoming laboratory experiment before doing the experiment. Each student will record all information relating to the experiment in his/her laboratory notebook, or on the computer, using guidelines provided by his/her instructor. Any lab that is missed must be made up (before or after school) unless your teacher excuses you from it due to extenuating circumstances. Twenty-five percent (25%) of the lab grade is from doing the lab in class; the remainder is from the lab report.
- iv. **Homework:** Homework will be checked on a regular basis; Chem 101 homework will be graded. It is the student's responsibility to complete all work assigned. Unless otherwise stated, homework is expected to be finished and ready to turn in at the beginning of class on the day it is due. Long-term problem sets may be collected and graded; opportunities will be provided for students to ask questions before the due date of the assignment.

c. Semester Grade Determination

Category	Weight
Tests	30%
Labs & Safety	25%
Quizzes	22%
Homework	10%
Final Exam	13%

d. Final Grade Determination

The final grade is the average of the 2 semester grades. Students who fail to maintain a B average or above will be subject to the RVGS probationary policy.

III. Class Policies and Procedures

- a. **Absences and tardies:** The policy in the RVGS student handbook will be followed.
- b. **Make-up Work:** It is the responsibility of the student to determine missed class work, homework, quizzes, labs, and tests during absences. Arrangements should be made immediately upon the return to school to make up any work before or after school.
- c. **Late-work penalty:** Work turned in late will have points deducted from it according to the following schedule: For homework, there is a 50% penalty for being one calendar day late – homework turned in more than one day late will not receive any credit. For lab reports, there is a 20% penalty per calendar day late with a minimum grade of 25% for performing the lab. If you have extenuating circumstances, you must contact the teacher at least one day before the assignment is due to be considered for an extension.
- d. **Cheating:** The policy in the RVGS student handbook will be followed.
- e. **Technology Policy:** The RCPS Acceptable Use Policy and the RVGS student handbook procedure will be followed.
- f. **Extra help:** All RVGS Chemistry instructors are committed to helping students one-on-one when needed and are available for help before or after school (with prior notice and scheduling). It is important to schedule an appointment (via email) to ensure that your teacher will be free to help.
- g. **Online Grade Access:** Grades are available at all times through either StudentVUE or ParentVUE. When viewing your grades, understand that:
 - i. A blank in the grade book means that the assignment has not yet been graded. Teachers will have all assignments graded within 5 school days of the due date (except for very long assignments which will be graded within 10 school days). You may have a blank because the teacher has not graded the class set or because your assignment was turned in after the due date. Blanks do not count as zeros in your average.
 - ii. A zero in the grade book means that you have earned a zero on the assignment. Cases in which this might occur include submitting incorrect answers to an assignment or submitting an assignment past the due date.
 - iii. An excused (EX) in the grade book means that you are excused from the assignment without penalty.

- h. Interim Reports:** A hard copy of your current grade will be given to you to take home three times during each semester (see dates on the school calendar). The interim report is a snapshot of your current class average. Please feel free to discuss your report with your instructor.
- i. Student Performance Strategy:** Interventions will be implemented at the teacher's discretion or if the student's grade falls below 80.
- j. SEC Notification:** Per Virginia Code (§ 22.1-16.8), parents must be aware of the use of any instructional materials with explicit content. No explicit materials are used in this course.
- k. General classroom procedures:** Drinks are allowed in the classrooms, but not in the lab area. No food is allowed in the chemistry classrooms.
- l. Electronic devices (cell phones, tablets, etc.):** The cell phone procedure in the student handbook will be followed. If parents need to contact a student during class, they should call the front office. Cell phones are to be placed in the location designated by your teacher when you enter the room. Smartwatches and earbuds are to be put away during class. *Electronic devices of any sort that are visible during a quiz or a test without the teacher's permission will automatically be viewed as evidence of cheating, which will result in a grade of zero for the assessment and possible dismissal from RVGS.*