

# Chapin High School Science Department ALA Chemistry HONORS 2025-26 Course Syllabus

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## **I. Course Catalog Description**

Grade: 9, 10, 11 Semesters: 2 Credit: 1

Prerequisite for students in grade 10: Biology I Honors ALA, Acceptance into the ALA Program

Prerequisite for students in grade 9: Concurrent enrollment in Algebra II Honors, Acceptance into the ALA Program

This course is intended for students who have a strong math background and who are interested in pursuing a medical, engineering, or pure science career. Students will be required to use critical thinking as they explain atomic structure, periodic trends, properties and transformation of matter, chemical reactions, energy transfer and conservation, and wave/particle properties. Students will cover these topics in great depth and explore additional topics in preparation for AP or college coursework. Learning experiences are built around the three dimensions of science: Science and Engineering Practices, Crosscutting Concepts, and Disciplinary Core Ideas. Emphasis is placed on quantitative analysis of laboratory experiments. The ALA designation is the result of a unique combination of rigorous academic work and leadership infusion via Center for Creative Leadership (CCL) lessons. Students will complete CCL lessons and begin compiling these lessons into a portfolio that will earn them CCL certification as a part of their ALA requirements. This unique course explores current topics within the subject through collaboration among teachers in ALA. As an ALA designated course, it offers students deeper immersion into the theoretical concepts, lab skills, and logical writing styles required for success in AP courses. *This is a lab science course*.

### II. Course Standards or Objectives

Every unit will have a schedule and objective list provided to students. The link to the course objectives is **given here**. The district's success criteria can be found at **this link**. Please note that this is a working document. South Carolina State Standards for Chemistry are available at SDE: **South Carolina State Science Standards**.

#### **III. Instructional Goals**

#### **Instructional Goals for Chemistry**

- Students will develop scientific problem-solving and data analysis skills.
- Students will make connections between the content studied and its application to technology and society.
- Students will be provided with a schedule which lists all assignments, labs, quizzes, and tests. The schedule will also include due dates. Students are expected to turn in assignments on time and late work will be penalized.
- If a student is absent, the student should make every effort to adhere to the schedule and should follow the makeup policy described below.

### Instructional Goals for ALA Chemistry Honors (in addition to the goals above)

- Students will learn the content and skills necessary to be successful in AP Chemistry and/or college level chemistry for majors in medicine, engineering, and pure science.
- Students will explore additional topics as outlined in the **extended knowledge** section of the *South Carolina Academic Standards and Performance Indicators for Science Support Guide for Chemistry I.*
- Students will be given opportunities to explore leadership roles in science and will engage in lessons on working in teams, managing conflict, the feedback loop, and leadership 101 as outlined in the Center for Creative Leadership (CCL) leadership modules.

# IV. Course Sequence/Pacing Overview

The Scope and Sequence for the course is given below along with the topics that are taught in Honors and not in CP. The Honors and CP Chemistry courses also vary in their sequence, types of labs, and assessments.

Unit Name	Quarter	Honors Differentiation from CP		
1-Introduction to Chemistry	1	Naming and writing formulas for acids and extended polyatomic ion list		
2-Stoichiometry	1	Predicting products, calculating the limiting reactant, justifying the limiting reactant, drawing particulate level diagrams		
3-Matter and Energy	2	Solving for heat given the thermochemical equation and mass of a substance, Hess's law, calculating heat of a reaction using the standard enthalpies of formation, explaining phase changes and energy in terms of intermolecular forces, calculating the heat for any portion of a heating/cooling curve		
4-Electrons in Atoms	2	Explaining periodic trends using Coulomb's law, analyzing photoelectron spectroscopy graphs, analyzing successive ionization energies to determine and justify the identity of the element, determining and justifying size of an isoelectric series		
5-Structure and Function	3	Determining shape of molecules with steric numbers 1-6, explaining properties of solids using the structure of the solid, determining lattice energy of ionic solids, structure of alloys, justifying the type of bond that forms using electronegativity of each atom		
6-Gases	3	Solving problems using gas stoichiometry, analyzing Maxwell-Boltzman distribution graphs		
7-Solutions	4	Solving solution stoichiometry problems with limiting reactant, using the Bronsted-Lowry classification to predict products between weak acids and weak bases		
8-Nuclear chemistry	4	Applying first order kinetics to the rate of radioactive decay		

## V. Textbooks and Additional Resources

Textbook: DeCoste, D. J., Zumdahl, S. A., & Zumdahl, S. S. (2020) World Chemistry. National Geographic Cengage.

### Required Materials: MUST BRING TO CLASS DAILY!

Students should have the following to aid in their success in the course:

- 3-ring binder or notebook for notes and handouts
- A charged device with a QWERTY keyboard. School issued Google Chromebooks are preferred.
- Pencil & Blue/Black Pen
- Scientific calculator or Graphing calculator

# VI. Course Grading Policies and Assessments

### Assessments/Grading:

- Students will be graded using the following categories: classwork/homework, labs, quizzes, and tests.
- The percentage for each category is:
  - o Tests 60%
  - o Quizzes 10%
  - o Lab 25%
  - o Classwork/Homework 5%

- Semester grades are calculated using the following percentages:
  - o Quarter 1 or 3 40%
  - o Ouarter 2 or 4 40%
  - o Mid-term exam or Final exam 20%
- Year grade is calculated by averaging the two semester grades.
- Interim progress reports, end of term reports, phone calls and/or conferences will report student progress to parents.
- Lab reports are a large portion of the at home assignments and all labs will have a rubric that clearly shows what is expected along with the point values.
- All tests will consist of multiple choice questions as well as free response questions. Each section typically counts for 50% of the test score.
- Parents and students are also encouraged to log onto ParentPortal which can be accessed from the web. The system allows parents and students to access grades, attendance records, and disciplinary actions through a user id/password protected program. If you have questions about how to access ParentPortal, please call the front office. There is also a Power school app that is very convenient and easy to use. Our district code is **NWRC**.
- Extra Credit: No extra credit will ever be given to a <u>specific</u> student in order to bring up his or her grade. Opportunities for extra credit <u>will only</u> be given to the <u>whole</u> class and only at the teacher's discretion.
- For lab reports/long term projects, a 10% deduction to the grade will be applied per day the assignment is late. A grade of "0" will be assigned after the **expiration date** if work has not been received unless other arrangements have been made.
- After the set **EXPIRATION DATE**, late work will be accepted for <u>feedback</u> only but will NOT count towards a grade.
- Class work: In order to receive full credit, assignments must be complete, legible or typed, and turned in on time. Some assignments will be required to be submitted via the Chromebooks.
- **Homework**: If homework is not completed at the <u>beginning</u> of class when homework is checked, the student will receive a grade of zero.
- The plagiarism policy is in the student handbook. **Special note:** Although laboratory investigations are completed in groups, the lab report is an individual effort and should be **unique** to the individual student. If students plagiarize their lab reports, they will receive a zero in the gradebook.

#### Missing class and Make-up Work Policy (from the CHS Handbook)

A student will be permitted to make up work missed during an absence. Rather than setting district wide guidelines regarding this matter, each school will develop specific procedures related to make-up work. These procedures will reflect the maturity level of students served by the school and course requirements as well as provide a reasonable amount of time to complete make-up work. Provisions of this policy shall be published annually by each school and communicated by each teacher to his/her students and their parents at the beginning of each course of study.

At Chapin High School students are encouraged to attend school regularly. Nevertheless, students are absent for a variety of reasons, but students should understand the responsibility of making up work. The following guidelines are established for make-up work:

- 1. It is the **student's responsibility** to make the necessary arrangements for **making up work** due to any absence.
- 2. There are a variety of options available to students to schedule make-up work during enrichment or after school.
- 3. Students who miss scheduled make-up appointments and/or assignments may be penalized.
- 4. Students will have **four school days** to complete in-class work for **every class day missed** in a course (up to two consecutive class days in a course.) **Examples:** If a student missed 1A on Monday, the student must complete make-up work no later than Friday of that same week. Or if a student misses 5B on Tuesday and Thursday during one week, the student must complete all make-up work within 8 school days of their return to school.
- 5. Students **missing three or more** consecutive classes in a course will be given **10 school days** to complete assignments unless other arrangements have been made.
- 6. **Pre-assigned work** (i.e. long term assignments, tests, presentations, etc.) is **due at the beginning of class upon the student's return** to class. If a student is not prepared upon return to turn in make-up work, the teacher may assign a zero unless other arrangements have been made.
- 7. The teacher will enter a "1" in the gradebook with the "M" comment for missing work. If a student does not make up work during the prescribed time, the teacher may assign a zero unless other arrangements have been made.
- 8. A student who misses classes because of a school-sponsored function is responsible for **long term assignments** that will be missed **before** going on the **trip**. Students should be prepared to make up any missed test/quiz and/or give any presentation the day they return to class unless other arrangements have been made.

9. Students whose lawful absences result in missing a final examination in a semester or yearly course will be provided a scheduled opportunity to make up the missed exam. Make up exams will not be scheduled during regular school hours. Exams must be taken on the scheduled day(s).

### Missing Class and Make-up Work (A note from me.)

All students should make every effort to attend class regularly in order to ensure their optimal success. I understand that there are times when students must miss class and student absences usually fall into two categories: planned and unplanned.

If a student has a **planned absence**, they should let me know and they should consult their class schedule so that they can plan a way to catch up on what they will miss. Students can use their study groups, recorded lessons, or other resources to catch up on material ahead of time if they have a planned absence. All class material will be on Google Classroom.

If a student has an **unplanned absence**, they can also consult their class schedule to see what they missed and take advantage of their study group, recorded lessons, or other resources to catch up on the material that they missed. If a student misses for an extended amount of time, we will develop a plan of action that will be shared with the parent. **Your student should initiate this process.** 

If a student **misses a quiz**, they should make it up as soon as possible since quizzes are formative assessments that gauge mastery. If a quiz is not made up before the test is given, the student will not be allowed to make up the quiz and the test grade percentage will be entered for the quiz grade.

If a student **misses the day before a test**, they will still be required to take the test if they return the next class period since no new material is taught the day before the test and the review sheet as well as the answer key will be posted on Google classroom.

If a student **misses a test**, they must make the test up after school or on Wednesday morning in the testing center. **Make-up tests** may have questions that are different from the original test because I return all tests the day after they are given and the class needs to be able to go over the test in a timely manner. Ultimately, it is the student's responsibility to learn the material that they missed and to make timely arrangements to make up work.

### Expectations for Distance Learning Days and/or E-learning Days (if applicable)

- All assignments turned into Google Classroom must be in a PDF format or one of the Google suite applications (Docs, Sheets, Slides, etc.). Work submitted in any other format will not be graded and will be returned to the student. The free scanning app that I use is Scannable (Blue icon with a butterfly), and it connects directly with my Google drive so it is very easy to use. I will provide instruction on this if needed during the first days of class.
- No emails will be answered after 4:00 pm.
- Google Meet expectations
  - o Enter with your mic turned off and your camera turned on
  - o Think about your background, make sure that it is school appropriate. I suggest working in a kitchen or office. You should not be in your bedroom.
  - o Think about your attire. You should be dressed appropriately.
  - o You may use the chat box to ask questions.
  - o Enter your full name into the chat box when you enter the meet.
  - Be on time for the meet and be engaged.
- On Google classroom, always click on the **Classwork** tab. All assignments are organized by units there. If you look at the stream, you will be confused!
- Assignments are usually due by the next class and due dates will always be given. Late penalties will be assessed and a zero and "missing" will go into the gradebook until complete. (This applies to virtual and face to face assignments; see the late/make-up policy below for more information.)
- Academic Honesty and Ethical Decision Making
  - I understand that during virtual distance learning days it will be easy to use more help than you should use to complete an assignment. Please understand that chemistry builds on the material learned so it is imperative that YOU master the material and own YOUR learning.

### **Cell phone Policy**

As a classroom teacher with 20 years of teaching experience, I have seen an alarming downward trend in student attention and retention that I believe corresponds with the distraction that cell phones provide. The research article entitled, *The Relationship Between Cell Phone Use and Academic Performance in a Sample of U.S. College Students* by Andrew Lepp, Jacob Barkley and Aryn Karpinski from Kent State University, confirms what I have witnessed in my own classroom. The research shows a correlation between cell phone use and low GPAs. In response to these concerns, South Carolina's General

Appropriations Bill, H. 5100 of 2024, Proviso 1.103, now requires school districts to implement a policy—adopted by the State Board of Education - that prohibits student access to personal electronic devices during the school day.

I will not allow the use of cell phones in class, in alignment with South Carolina Proviso 1.103, which prohibits student access to personal electronic devices during the school day. Upon entering the classroom, students must place their cell phones in the designated phone box. If a student retrieves or uses their phone without permission, they will first be asked to return it to the box. Continued misuse will result in the phone being confiscated for the class period and a phone call home. **Students who repeatedly violate the policy or fail to comply when asked to put their phone away will be referred to administration.** 

## VII. Grading Procedures

Continuing in the 2025-26 school year, grades for minor assignments must be posted within <u>5 school days</u>, and major or extended assignment grades must be posted within <u>10 school days</u>.

For this course, major grades will be tests and lab reports and minor grades will be classwork/homework and quizzes. Parents **and** students are also encouraged to log onto ParentPortal which can be accessed from the web. The system allows parents and students to access grades, attendance records, and disciplinary actions through a user ID/password protected program. If you have questions about how to access ParentPortal, please call the front office. There is also a Power school app that is very convenient and easy to use. Our district code is **NWRC**.

# VIII. Exam Exemptions

Seniors can exempt final exams in semester classes and yearlong classes if they meet the following conditions:

- 1. Grade of 80 or higher in the course.
- 2. Has not had an In-School Suspension or an Out of School Suspension.

### IX. Honor Code

In order to foster an environment of mutual trust and respect, we believe, within the community of School District Five of Lexington and Richland Counties, each individual should accept the personal responsibility to exhibit and promote academic and social integrity. *Students will not cheat or plagiarize*.

School District Five of Lexington and Richland Counties recognizes the potential of Artificial Intelligence (AI) to enhance teaching and learning. We acknowledge the ever-changing nature of AI and understand the need to adapt to new developments. Our commitment is to ensure that any use of AI upholds a humanistic view of teaching as a priority, while implementing technologies in a manner that is equitable, ethical, and beneficial to all of our students and staff. Here is the <u>District AI Position Statement</u>. The district also created <u>Artificial Intelligence (AI) Guidelines for Faculty and Students</u>, as well as <u>Artificial Intelligence (AI) Guidelines for Parents and Guardians</u>.

**Special note for lab reports:** Although laboratory investigations are completed in groups, the lab report is an individual effort and should be **unique** to the individual student. If students plagiarize their lab reports by submitting identical lab reports, they will receive a zero in the gradebook.

#### X. Suggestions for Success in Course

ALA Chemistry I Honors is a very challenging course. The material is extensive and the class is fast paced. It is particularly difficult to be successful in this course without personal motivation and daily study. We will cover all of the state content standards plus additional pre-AP/college chemistry topics. This is in anticipation of your desire to pursue the academically challenging AP level science program offered here at Chapin High School and/or science in college. Please remember that this is an Honors course, and you are earning additional quality points on your GPA. Because of this, the material will be much more challenging than at the CP level. I expect hard work, and students will be successful if they consistently do the following:

- 1) Take notes in class in a notebook exclusively designed for this class.
- 2) Write down and work all examples given during instruction. Chemistry is not a spectator sport!
- 3) Complete the assignments on the day it is assigned. Don't procrastinate and don't copy someone else's work. You are responsible for your learning.
- 4) Ask questions in class. Come for help during enrichment, and find a study group.

## XI. Classroom Management Plan

I am very excited to start this school year. With your help, this will be a rewarding and positive time. In order for me to do my best in the classroom, I am employing a district-approved plan of assertive discipline.

All rules for conduct are based on the belief that teachers have the <u>right to teach</u> and students have the <u>right to learn</u>. To that end, any behavior that interferes with the teaching/learning process cannot be tolerated.

### **Policies and Procedures:**

- 1. I will expect you to be **READY**, **RESPONSIBLE**, **AND RESPECTFUL** while in my class. Which means, be seated when the tardy bell rings and stay in the assigned seat unless otherwise directed.
- 2. Bring all necessary materials to class (science notebook, charged Chromebook etc.).
- 3. Stay on task throughout the class time: No sleeping, no touching up of makeup, no packing up early, no standing to wait for the bell!
- 4. Follow the district Honor Code at all times.

### Consequences

When a student chooses to break a rule:

1st infraction: Warning (verbal or visual)
2nd infraction: Phone call/email home

3rd infraction: Discipline referral to administrator **Severe Disruption:** Immediate removal from the classroom.

**Lab/Activities**: A student horsing around during lab activities will need to return to their seat (The above negative consequences still apply). For continual infractions in the classroom over a period of time, the student may be put on an individual behavior plan by the teacher/administrator.

\*\*If anything occurs that infringes upon my rights as a teacher and the learning process, for example, repeated disruptions, verbal abuse, fighting, etc., then I will issue an automatic discipline referral.

- B. Students are expected to follow all rules and guidelines listed in the Student Handbook on the school's website.
- C. Students are expected to use school and personal technology responsibly and follow rules included in the <u>District 5 Mobile</u> <u>Device Guide</u> and <u>Acceptable Use Agreement</u>. This includes:
- a. Having a charged mobile device (district-issued Chromebook or comparable personal device) at school EVERYDAY.
- b. Not using devices assigned to other students.
- c. Being responsible for their own devices and should keep them secured at school and off campus.
- d. Following all teacher directions regarding appropriate times for use of the device.

### XII. Uniform Grading Scale

See <u>State Department of Education website</u> for complete details. All report cards and transcripts will use numerical grades. A=90-100; B=80-89; C=70-79; D=60-69; F=Below 60

10 Point Grading Scale						
South Carolina Uniform Grading Scale Conversions						
Numerical Average	Letter Grade	College Prep Weighting	Honors Weighting	AP/IB/Dual Credit Weighting		
100	Α	5.000	5.500	6.000		
99	Α	4.900	5.400	5.900		
98	Α	4.800	5.300	5.800		
97	A	4.700	5.200	5.700		
96	Α	4.600	5.100	5.600		
95	Α	4.500	5.000	5.500		
94	Α	4.400	4.900	5.400		
93	A	4.300	4.800	5.300		
92	Α	4.200	4.700	5.200		
91	Α	4.100	4.600	5.100		
90	A	4.000	4.500	5.000		
89	В	3.900	4.400	4.900		
88	В	3.800	4.300	4.800		
87	В	3.700	4.200	4.700		
86	В	3.600	4.100	4.600		
85	В	3.500	4.000	4.500		
84	В	3.400	3.900	4.400		
83	В	3.300	3.800	4.300		
82	В	3.200	3.700	4.200		
81	В	3.100	3.600	4.100		
80	В	3.000	3.500	4.000		
79	С	2.900	3.400	3.900		
78	С	2.800	3.300	3.800		
77	С	2.700	3.200	3.700		
76	С	2.600	3.100	3.600		
75	С	2.500	3.000	3.500		
74	С	2.400	2.900	3.400		
73	С	2.300	2.800	3.300		
72	C	2.200	2.700	3.200		
71	С	2.100	2.600	3.100		
70	С	2.000	2.500	3.000		
69	D	1.900	2.400	2.900		
68	D	1.800	2.300	2.800		
67	D	1.700	2.200	2.700		
66	D	1.600	2.100	2.600		
65	D	1.500	2.000	2.500		
64	D	1.400	1.900	2.400		
63	D	1.300	1.800	2.300		
62	D	1.200	1.700	2.200		
61	D	1.100	1.600	2.100		
60	D	1.000	1.500	2.000		
59	F	0.900	1.400	1.900		
58	F	0.800	1.300	1.800		

Each final grade (numerical) will have different weighting for the basis of computing GPR. The chart included gives the weighting for each numerical value.

Extra weight is given to honors (.5) and AP (1.0) courses. This policy also establishes that courses may not be dropped after the fifth (5th) day in a semester class or after the tenth (10th) day in a yearly class without penalty.

Students may only retake a class at the same difficulty under the following conditions: Only a course in which a D or F was earned may be retaken.

The course must be retaken at the first opportunity within the next year. The student's record will reflect all courses taken and the grade earned, except for courses taken prior to the ninth grade.

### XIII. Student/Teacher and Parent/Teacher Communication

- A. All students should use district issued email accounts for communicating with teachers (studentnumber@stu.lexrich5.org).
- B. All students should check school email, Google Classroom and Google Calendar every school day.
- C. Parents and students should check the teachers' websites for classroom calendars/assignment sheets.
- D. Parents may contact teachers via email in order to receive invitations to Google Classroom parent/guardian signup. Parents will receive an email from Google and then need to register to receive emails from Google Classroom. Once a parent is registered to receive emails from one class, he/she will receive emails from all Google Classroom groups. It is not necessary to contact all teachers to register.
- E. Emails and phone calls to teachers will be returned within two business days.
- F. Parents and students who would like access to the parent/student PowerSchool portals should visit the CHS attendance office for login information.

# XIV. School Attendance and Make-up Work Policy

Students are encouraged to attend school regularly. If, however, a student must be absent from school for any reason, it is his/her responsibility to make-up all missed work.

Students who miss more than one half of an instructional block will be marked absent for that block of instruction. See the Student Handbook on the school website for full attendance and absence policy.

Since it is in the student's best interest to make up all missed work as quickly as possible, the following guidelines have been established for make-up work:

- A. When a student misses a class meeting, all previously assigned work that was due the day of the absence is due no later than the beginning of the next class meeting in which the student is present. All work missed as a result of the absence is to be completed by the beginning of the second class meeting from the absence.
- B. When a student misses two consecutive class meetings, all previously assigned work due while the student was absent and all work missed as a result of the absence should be completed by the beginning of the second class meeting from the absence.
- C. When a student misses three or more consecutive class meetings, he/she must make specific arrangements for make-up work with each teacher the day he/she returns to class. The amount of time given for completion of work will be up to the teacher's discretion based on the amount of work missed and the level of difficulty of the material.
- D. Long term projects and papers are due when the teacher says they are due. In the event of an absence, the student or the student's parent should notify the teacher in advance or upon immediate return to school.
- E. Students are responsible for the work they miss while on a field trip or attending any other school event. Students should contact each of the teachers whose classes they will be missing to make specific arrangements with them regarding all make-up work. Teachers may choose for work to be submitted in advance. If the student does not follow the teacher's guidelines, the student will receive the academic penalty as assigned by the teacher.

F. Students must make every effort to complete all make-up work according to these established guidelines. If the student has not submitted his/her make-up work within the specified timeframes outlined above or as directed by the teacher, the teacher has the option of not accepting the work. As with anything, regular communication with the teacher is encouraged.

# XV. Syllabus Acknowledgement and Information Form

Parents, please complete the Acknowledgement Form below to show that you read and understood the syllabus. Pay close attention to the information about missing class and make-up quizzes and tests.



**Parent Acknowledgement Form**