Naperville North High School AP Chemistry Syllabus 2024/2025

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District Mission	To educate students to be self-directed learners, collaborative workers, complex thinkers, quality producers, and community contributors.
Department Mission	At Naperville North High School, our mission is to provide high-quality, innovative, and engaging science education that fosters deep understanding, critical thinking, and a lifelong passion for scientific inquiry. Grounded in the Next Generation Science Standards (NGSS), our curriculum and teaching approach empower students to develop the knowledge, skills, and attitudes necessary to thrive in a rapidly changing world. We are dedicated to nurturing curiosity, collaboration, and scientific literacy, preparing our students to become informed citizens who can contribute to solving local and global challenges through the application of scientific principles.
Course Description	This AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. This course is structured around the six big ideas articulated in the AP Chemistry curriculum framework provided by the College Board. The subject matter will include topics in inorganic and physical chemistry. Concepts and skills are reinforced by a strong emphasis on hands-on laboratory experiences and the integration of other branches of science. Constructivist methods of teaching are employed to ensure the best possible comprehension and retention of science concepts. REQ: Chemistry; Honors Chemistry
Course Textbook & Resources	Chemistry: The Central Science 13th edition Brown and LeMay
Course Standards & Weights	D203 Curriculum Map for Honors Chemistry High School SEL in Science
Units of Study:	Semester 1 • Chapter 1: Introduction: Matter and Measurement • Chapter 2: Atoms, Molecules and Ions • Chapter 3: Chemical Reactions and Reaction Stoichiometry • Chapter 4: Reactions in Aqueous Solutions • Chapter 5: Thermochemistry • Chapter 6: Electronic Structure of Atoms • Chapter 7: Periodic Properties of the Elements • Chapter 8: Basic Concepts of Chemical Bonding • Chapter 9: Molecular Geometry and Bonding Theories • Chapter 10: Gases Semester 2 • Chapter 11: Liquids and Intermolecular Forces • Chapter 14: Chemical Kinetics • Chapter 15: Chemical Equilibrium • Chapter 16: Acids-Base Equilibria • Chapter 17: Additional Aspects of Aqueous Equilibria • Chapter 19: Chemical Thermodynamics • Chapter 20: Electrochemistry
Grade Calculation Definitions	Students will be provided with multiple and varied opportunities to demonstrate mastery of learning standards. Although varied in content, all courses will include examples of practice and evidence of learning: • **Evidence of Learning**: Tasks or assessments where feedback is provided to the student and considered evidence of a student's level of proficiency on a given standard or skill. This may include, but is not limited to formative tasks that provide insights on areas for growth as well as summative tests, projects and/or

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performances. In this course, specific examples include: Tests, Quizzes, and Labs

- **Practice**: Tasks that are connected to course standards and learning targets that promote the development of skills and/or knowledge that will be assessed, but where feedback is not provided. This may include, but is not limited to daily readings, note taking, practice exercises and tasks essential to the learning process. In this course, specific examples include: Homework checks, and whiteboard presentations.

Grading Disbursement

Semester grades for all classes (prior to the final exam) will be calculated by a weighted average. As part of the calculation for the overall semester grade, final exams/projects will not exceed 15% of the semester grade.

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

Semester Grade:

- Coursework = 85%
  - Evidence of Learning
    - Test 55%
    - Labs 20%
    - Quizzes 20%
  - Practice
    - Homework 5%
- Final Exam = 15% *Final Exam Format: Multiple Choice/Free Response*

Grading Practices

Grades communicate each student's progress toward mastery of goals/standards for the course.

- Infinite Campus Symbols/Comments:
  - A score of "Missing" (M) will indicate an assessment has not been turned in and the comments section will include a specific date by which students can still submit. After that date, a zero (0) will be recorded.
  - Any score may also have a comment indicating the due date, turned in, late, reassessment eligibility including the timeline and/or reassessment final scores.
  - A zero indicates that no attempt was made by the student. If a legitimate attempt is made on an assessment and practice work has been completed in a consistent and timely manner (*completing 85% of practice listed in Infinite Campus.*), a score of 50% will be the lowest possible grade.
- Late Work:
  - Evidence of Learning work submitted after the original due date cannot be penalized more than a total of 10% and can be submitted for credit up to 5 days after the original due date.
  - Practice Work is not accepted for credit after the due date.
- Other:
  - No extra credit will be issued.

D203 AI Belief Statement

At Naperville North High School, we strive to build a learner's mindset in all students, developing qualities such as adaptability, communication, critical thinking, and global citizenship. Generative Artificial Intelligence (AI), offers new opportunities to engage with important technology relevant to the future that also raises significant educational considerations. AI tools provide unique ways to engage students in the learning process, hence we encourage our staff to guide students in using AI responsibly. Teachers have the authority to establish guidelines for AI use in their classrooms, setting clear expectations for how AI can be used on learning tasks. Concurrently, we recognize that reliance on AI risks replacing genuine student engagement and original thought, undermining the attributes we aim to cultivate. Striking a balance between leveraging AI tools effectively and maintaining educational standards is crucial to the learning experience of each student.

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Academic Integrity Code

District 203 students are challenged to address the academic process enthusiastically, diligently, and most importantly, honestly. It is the responsibility of our students, teachers, and administration to uphold the fundamental academic values of honesty, responsibility, fairness, respect and trust. The integrity of our district's academic programs is built upon these principles.

Academic integrity violations include cheating, plagiarism, self-plagiarism or copy infringement, obtaining or providing an unfair advantage, using a writing service and/or AI in place of original work unless specifically authorized by staff, falsification of documents, unauthorized access to records, and inappropriate collaboration, whether intentional or unintentional. The classroom teacher and administration will collaborate and exercise professional judgment in determining academic integrity violations.

Reassessment Policy

The purpose of reassessment is to allow students to demonstrate mastery of course standards in which they remain deficient. Higher reassessment grades will replace the original assessment score, but will not exceed 85%.

- Practice work is not eligible for reassessment.
- Evidence of Learning work may be eligible for reassessment. Refer to the chart below for eligibility:

☐ The assessment included multiple opportunities for feedback and improvement in the process for the final product OR formative assessments are aligned to standards, allow students to practice in the same assessment format, and gain feedback for improvement before the summative assessment.	☐ There was timely and consistent completion of practice work and formative assessments. ☐ A one-time performance on an assessment does not reflect the student's level of proficiency leading up to the assessment. ☐ Summative assessment score is below 85%.
☐ Not eligible for reassessment	☐ Eligible for reassessment if all three statements above are true.

Reassessment Parameters:

- The reassessment opportunity will require designated learning experiences that demonstrate readiness as assigned by the teacher.
- Reassessments MUST be completed within 5 school days of the student receiving feedback unless otherwise determined by the instructor. The reassessment deadline should be communicated in an IC comment.
- The final reassessment score will be capped at 85%.

Student Communication

- You are encouraged to communicate with their teacher regarding questions.
- Teachers make every effort to respond to emails and phone calls within 24 hours during the workweek.
- The best way to communicate with teachers is through email; however, if you haven't received a response within 48 hours, please resend the email or call their voicemail. Your email may have been filtered.

Additional Resources for Support

- You can make an appointment with your teacher should you need additional instruction or support in learning material.
- You can attend After School Tutoring in the Learning Commons Monday, Wednesday, and Thursday from 3:15-4:15 to receive extra support or to work on assignments.
- You can drop in to work with a peer tutor during lunch periods or before school in the Literacy Center.

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Parents or Guardians Partnership

Naperville North believes in a collective partnership with parents/guardians which provides students the best opportunities for success.

Some ways parents/guardians can support their student's learning are:

- Actively check Infinite Campus for their student's grades.
  - Infinite Campus is a tool to progress monitor student work until the final course grade is posted.
  - Monthly progress grades are posted and represent the current grade of a student in the course at that moment in time.
- Discuss missing assignments, reiterate due dates, help organize folders, materials, assignment notebooks, and review upcoming projects and assessments.