

COURSE:

Chemistry

MIDLAND CLASSICAL ACADEMY

COURSE DESCRIPTION

2025-2026



GENERAL DESCRIPTION

Chemistry is the study of the composition of matter and the changes matter undergoes. Central to chemistry is the study of the elements and the compounds made up of them which God created and used to build the universe. Topics are related to five central themes: 1. Chemistry is all about electrons. 2. Chemistry is all about electromagnetic forces. 3. Chemistry is all about minimizing energy. 4. Chemistry is all about whole number ratios. 5. Chemistry is all about modeling.

COURSE PURPOSE

Chemistry provides the opportunity to expand the students' view of our Creator and inspire wonder and curiosity about God and His creation while gaining an understanding of chemical principles.

COURSE OBJECTIVES

- Gain a mastery level of basic chemical principles
- Learn the practical and mathematical aspects of chemistry
- Understand the relevance of chemistry in everyday life
- Explain the complexity of God's design of the universe

REQUIRED READING

- *General Chemistry (2nd Edition)* by John D. Mays

SUPPLIES

Also consult Grade Level Supply List.

- Binder or folder for paper organization
- College-ruled notebook paper
- Pencils
- Scientific calculator
- One box of nitrile gloves (for your use during labs)

GRADING

- **Class Contribution (includes daily homework from the text) - 30%**
- **Chapter Assignments, Quizzes, Labs – 20%**
- **Tests/Projects/Research - 50%**

CONTRIBUTION GRADES

Contribution Grades primarily assesses four areas: a student's preparation for class, his attitude towards learning, his contribution towards learning during class-time, and his level of engagement during the class conversation.

A student's respectfulness towards God, his tutor, and peers is a prerequisite for a good Contribution Grade.

Daily Contribution grades will be given for every hour of class. Typically, students are expected to earn 10 points per hour, but the tutor may adjust these values to better reflect the nature of the class time. Daily Contribution grades are not revisable.

Additional Contribution Grades such as homework from the textbook will be assigned as needed. Homework from the textbook is not revisable. Students are expected to do the practice problems and check their own work using answers found in the back of the textbook. If these contribution assignments are not done in a timely manner, students will not be prepared for other assignments or tests covering the material. **While this does not technically count for a great deal of the student's grade, it is a large factor in understanding the material each day and overall success in the class.**

REVISIONS

Homework which includes problems from the textbook will be included in your contribution grade and may not be revised. This homework is worth 5 additional points, bringing the daily contribution points total to 15.

All tests that are passed with an original score of 70% or above may be revised for 70% of the points lost.

If a scheduled test is not passed with a grade of 70% or above, the student must take the following actions to gain understanding of the material and raise his/her test score:

- The student must revise the test and arrange a time to sit down with the tutor to go over revisions and ensure understanding. The student must initiate this tutoring session, and the session will be held at the tutor's convenience.
- If sufficient understanding cannot be demonstrated, the student may be required to revise certain homework problems that are causing difficulty. The student must review these problems as well as the test revisions with the tutor at the tutor's convenience.
- **The student must pass a second version of the test with a score of 70% or higher or the process will need to be repeated.**
- The original test grade plus revision points and the retake of the test will be included in the student's grade.
- Retakes may not be revised unless the test will be taken again a third time. **The final retake may not be revised.**
- The process above must be completed within the deadline given by the tutor. This deadline will be determined by the date of the next scheduled test as all material is cumulative. If a student does not take a retake by the deadline, a zero will be entered in FACTS Family Portal for the retake.

Chapter assignments, labs, and scheduled quizzes may be revised for 70% of points lost. Revisions for these assignments are due within three weeks of the original due date. Revisions serve their purpose best when done before the test covering the material included on the assignment.

LABS

During the year we will conduct several labs in class. Because of the 50-minute time constraints on lab days, students are expected to have read and understand the lab instructions before arriving to class. Students will also be expected to follow all safety procedures and instructions and behave in a way that befits the situation. Failure to do so will result in a low contribution grade and possibly being told to leave the room. If this occurs, the student is responsible for completing a make-up assignment in order to recover 70% of the possible points of the original lab assignment. Labs will be conducted in groups of 3-4 students. Students are allowed to share

hand-written data collected during the lab, but are not allowed to share formatted graphs, data tables, or answers to questions for their reports. This will be considered a violation of the MCA Honesty Policy and will be treated as such.

EXTRA CREDIT

Extra credit assignments will be given at the tutor's discretion if all work and revisions have been completed and turned in. Extra credit opportunities will generally be given as an opportunity for every student and not to individual students.

COMMUNICATION

Parents and students can email, text or call me. After school hours, the best way to contact me is through text, as I do not usually check my school email at home. Please do not text after 9 pm. It is important in chemistry to reach out for help at the first sign of not understanding the material, so please come by my office or contact me if you need help outside of class.

MCA Schoolwide Policies

MCA ATTENDANCE POLICY

Absence: Parents must inform the school if their student will be absent for any reason. Call the Front Office or email upperschoolnurse@mcaknights.org prior to the absence or on the morning of the absence. If a student is absent without prior notification by a parent, the school will call the parent to determine the validity of the absence. Call the office, 432-694-0995, or email upperschoolnurse@mcaknights.org.

In the event an Upper School student is absent for more than one-fourth (1/4) of the class sessions during a semester, the student's parents must meet with the tutor and Head Administrator to determine whether the student will receive credit for the class. Additional and/or make-up work may be required.

Tardy Policy: Tardies will be marked at the discretion of the individual tutors. Students or parents should contact the individual tutors to report reasons for tardies as soon as possible.

Missed Assignment Due Date Guidelines: In the event of an absence, a due date extension will be given. The extension will not exceed the number of school days missed during the absence. Due dates will be established by the class tutor. Students must complete all work assigned during their absence. However, the tutors may, at their discretion, excuse the students from any portion of the assignments missed. Students will receive full credit for submitting assigned work. Note: It is the **student's responsibility** to find out what work was assigned. In the case of extended illness, it is recommended that the student or parents contact the tutors directly to find out what assignments were or will be missed.

MCA HONESTY POLICY

All students are assumed to be exhibiting the godly fruit of self-control. We anticipate working with students who are characterized by joy, honesty, and diligence. For this reason, upon enrollment, we require that each student affirm that he or she will maintain the highest standards of honesty and behavior in all work done for Midland Classical Academy. All students will be asked to sign the following.

Pledge of Academic Honesty

I have read and understand the Midland Classical Academy Code of Conduct. I pledge my honor, with God as my witness, to commit myself to the practice and preservation of these standards of academic honesty as long as I am a student of the academy.

As such, the following actions are considered serious violations of our Honesty Policy.

1. *Directly copying someone else's work visually, orally, electronically, or otherwise.*
2. *Use of disallowed devices on assignments such as notes, smartphones, books, etc.*
3. *Getting test questions or essential information from another student who has already completed an assignment that will later be taken, such as a test or quiz.*
4. *Any other activity that the tutor has explicitly described as cheating.*

MCA MASTERY WITH HONORS (MH)

Midland Classical Academy offers honors credit, referred to as "Mastery with Honor", but we offer no "honors" classes.

Mastery with Honor credit for a class is given to those students who

- receive a minimum grade of 92.5 at the end of each semester
- receive a minimum participation grade of 85 at the end of each semester
- demonstrate character befitting an honor student (1 Corinthians 10:31)
- complete a tutor-approved, 20+ hour project that advances the student's knowledge or skills in the subject while serving either the school or the community in some capacity.

As a student fulfills these requirements in a class at MCA, they receive a Mastery with Honor designated by an "MH" for the class. Mastery with Honor applications and a nominal fee are due at the end of October. The projects themselves are due at the end of March with two scheduled checkpoints in between the application and final deadline.

ARTIFICIAL INTELLIGENCE (A.I.) POLICY

Artificial Intelligence programs are tools that can be used beneficially or harmfully. To the extent that MCA uses these A.I. tools, we desire to use them and instruct our students to use them beneficially. It requires the classical virtue of "Wisdom" to discern the difference between what is beneficial and what is harmful.

Among MCA's core values is "Engaging Minds". Everything we do, including our use of A.I. needs to be in harmony with this value and to cultivate within students the skill of being able to "think for themselves".

MCA offers the following principles for tutors & students to follow as they navigate A.I. in their academic domains. MCA tutors will create and clearly communicate their own instructions for A.I. usage in their classrooms and for their assignments. Students should practice integrity, honesty, and humility in their use of A.I. as in all their work.

Principle 1: *Why to use A.I.* - A.I. should only be used by a student to equip them to better understand the material and to learn in a way that facilitates their critical thinking skills.

Principle 2: *When to use A.I.* - Tutors will explicitly and clearly communicate which assignments a student may or may not use A.I. tools to assist in their learning.

Principle 3: *How to use A.I.* - Tutors will explicitly and clearly communicate the method in which it is acceptable and not acceptable for the student to use A.I. tools.

TURNITIN POLICY

Turnitin is an internet-based service and tool that promotes academic integrity and original thought from students. Turnitin screens for similarity (plagiarism) and detects unauthorized A.I. usage in writing.

To better ensure academic integrity and original thought, tutors may ask students to either submit their classwork through Turnitin directly or to email them a digital copy of their classwork, for the tutor to upload through Turnitin screenings.

Tutors may use the feedback Turnitin provides to help them make a more-informed determination about the integrity and originality of the student's work.