

General Chemistry
Newman Grove Junior/Senior High School
Andrea Miller

Course Description:

Chemistry is a yearlong college preparatory class designed to meet the Nebraska state standards. Through this course students will learn the critical thinking skills and standard laboratory procedures necessary to be successful in any science class. Students will learn through lectures, reading the textbook, interactive computer programs, videos, laboratory experiments, research projects, the Internet, homework, quizzes, and tests.

Learner Outcomes:

Upon completion of General Chemistry, students will be able to:

- know and correctly use the language of chemistry (nomenclature, terminology, and symbolic representations)
- understand and be able to apply chemical facts, concepts, and models, and be able to use them as a foundation to organize further chemical knowledge and to understand the physical world
- be able to visualize the structure of matter and its reactions at the atomic and molecular (microscopic) level and comprehend how these lead to the properties and behavior of bulk matter
- master qualitative and quantitative problem-solving skills
- be able to use their knowledge to analyze and construct solutions for new and unfamiliar problems
- be able to solve quantitative problems using basic mathematical skills
- understand the nature and application of natural or physical sciences at a basic level sufficient to:
 - conduct simple experiments
 - generate and analyze real data
 - present data for analysis (e.g. using charts, graphs, tables)
 - perform mathematical calculations appropriate for data analysis
 - use abstract reasoning to interpret data
 - formulate and test hypotheses with scientific rigor
 - understand the complexities of scientific issues sufficient to think critically about the mutual impacts of science, society, natural resources, and the environment.

Textbook:

Chemistry: Matter and Change - Glencoe Science

Class Activities and Lab Safety:

Students will be responsible for keeping an organized notebook, participating in in-class activities, participating in labs and dissections, completing homework and classwork assignments, projects, quizzes, research, and reports. Both parents and students must sign a lab safety form that I will keep on file. Students who exhibit signs that they are a danger to themselves or others may be removed from any and/or all laboratory investigations. Students are expected to follow all safety rules and teacher instructions. **You are never allowed in the chemical room. You are responsible for your lab stations. They must be cleaned at the end of every lab. This includes washing and putting your equipment away, cleaning out the sink, wiping down the lab counter and cleaning out the cubicles. Failure to clean up will result in an after school retraining and a lowered lab grade.**

Usually you will be taught the material before going home and doing it on your own. We will do sample problems in class that can be found in your notes and referred to while doing homework at home. The book outlines step by step how to do all chemistry problems. It's a good book so use it when completing homework.

Laboratory Work: Each chapter will have a required lab(s).

Chemistry is heavily math-based. You need good math skills to be successful in chemistry. It is required that chemistry honor students have taken or are taking Algebra II. If you do not meet these math requirements see me immediately.

One of the main goals of this course is to learn problem-solving techniques, which are important and useful throughout your life. In chemistry we use observation, sifting facts, logic, and trial and error to come up with answers. These are important skills that can be used in any life situation.

Required Materials:

Pencils and pens (black or blue ink only), 3 ring binder with notebook paper and dividers, and a **composition notebook - which will be provided by your teacher**. Students may not participate in labs unless I have a lab safety form on file.

Evaluation:

The distribution of the grade is as follows:

1. All laboratory assignments and practicums
2. Organized lab notebook
3. Homework, Quizzes, Projects, and Classwork
4. Tests
5. Mid-term exam
6. Final exam

Progress reports will be sent home every 4-½ weeks. Check the school calendar for dates that Report Cards are sent out.

School grading policy:

Scale is as follows:

A	93-100	4.0
B	85-92	3.0
C	77-84	2.0
D	70-76	1.0
F	0-69	No Credit

***Academic Integrity:* Cheating is a zero for that assignment or test and an office referral.**

Classroom Management:

1. All rules and regulations as set forth in the student handbook are in effect.
2. Late homework is not accepted. Due at the beginning of class or it is late. Labs may be turned in one day late for a minor penalty on the earned grade. I will not accept labs beyond one day late and the student will earn a zero in the lab. **If you turn in a lab that is not complete you will earn a zero.** Therefore it is better to finish the lab and turn it in late with a minor point penalty rather than turn it in unfinished and earn a zero.
3. Extra Credit will seldom be offered but when it is offered it is only available to those students who have completed all required assignments. Extra credit opportunities will be academic in proportion and when completed will enhance your chemistry knowledge.
4. Absence Policy: Immediately upon returning to class all missed materials must be picked up by you from your class absentee folder. It is your responsibility to pick up materials and finish assignments on time (one day extra for each day missed). If you were absent on lab day then you must stay after school when you return to make up the lab. If you are unable to stay after school to make up a lab then you will earn a zero on the lab. Don't miss class if you can't stay after school to make up your work. We do several labs for each chapter.
5. A graphing calculator is not necessary; however, if you own a graphing calculator you may use it for chemistry as long as you **never** play games on it during class. If you disregard this rule then you will not be allowed to bring a graphing calculator to class and will be required to purchase a non-graphing, non-game playing, scientific calculator.
7. If you are addicted to **texting** then keep your cell phone out of my class. Cell phones are not to be used in class. If you use it or if I suspect you are using it I will write a referral.

Make-up work policy:

We will follow the policy for make-up work as stated in the Newman Grove Junior/Senior High School Handbook. Parents may request assignments from me if the student is absent for a prolonged period of time. In extenuating circumstances, students may turn in work late provided that I have spoken with the student and have received a note from a parent/guardian. Late work is not accepted except in extenuating circumstances. **If you do not turn in your make-up work within the two-day allowance, you will receive a zero.**

I believe a strong work ethic will get one further in life than natural ability. **I admire hard work and have a very difficult time accepting anything less than one's best effort.**

Suggestions for Success

1. **Read the Book.** Reading assignments must be done before coming to class. Read everything on the pages assigned including picture headings, explanations, tables, and graphs. Outline the chapters by writing down keywords and the meaning of the words. Re-read the chapter following class lectures if you are having difficulty with the learning objectives. Complete all sample and practice problems found in the reading assignment.
 - a. Note-taking Tips: begin with the date, highlight keywords, and information, when I use visual aids or examples in class put those examples into your notes, review your notes daily and highlight material you don't understand, and ask for help during class.
2. Quizzes are given to make sure you understand the material along the way before a test is given. All quizzes are announced and you need to study before a quiz. Suggestions for studying could be any or several of the following: re-read the chapter, study your notes and homework assignments, highlight keywords, make flashcards, or re-copy your notes.
3. Test dates are given far in advance. Do not wait until the night before to begin studying.
4. **Labs are just as important as a test. Take them very seriously. Be prepared for the lab. You must read the lab completely before coming to class. You must understand the textbook material surrounding the lab. YOU will be required to work on pre-lab questions, an introduction, hypothesis and procedure before lab day. Be prepared by having all requirements met before lab day. If you fail to meet pre-lab requirements you will receive a zero on all pre-lab questions. Your understanding of the lab is essential to keep everyone safe.**
5. Take a few minutes at the beginning of each class and review the notes you took yesterday.
6. Thinking is a skill; use it often when doing chemistry.

Problem-solving can only be mastered through practice. Put forth the time and effort to solve chemistry problems. Some can be challenging but you can always put something down on paper as a starting point. Never come to class with anything done and use the excuse I didn't get it. Use your book, notes, weblinks, and previous assignments to assist you in writing something down, use this as a starting point, and then keep working at it until you get it. Quitters never win.

Newman Grove Jr./Sr. High School

Chemistry
Mrs. Andrea Miller

Dear Parent/Guardian,

I am looking forward to working with your son/daughter this year. Please read over this syllabus in order to be aware of my expectations. In addition to progress reports, I will contact you if there is a significant drop in their grade. My planning period is from 2:09-3:03. The phone number for Newman Grove Junior/Senior High School is (402) 447-6294. It is usually easier to contact me through email. Please feel free to email me at any time at andrea.miller@ngpublicschools.com. If I am not available, I will respond as soon as possible. I am available before and after school to help your son/daughter whenever he/she has questions or problems. Please encourage your child to take advantage of extra help before and after school when necessary. Please feel free to contact me whenever you have questions or concerns, also provide your email address so I may contact you more efficiently. You may access your son/daughter's progress through the JMC Computer System. To sign up, you need to contact Mrs. Sauser, our technology specialist, to obtain a password.

Sincerely,
Andrea Miller
7-12 Science Teacher, NGHS

Student Name: _____ Date: _____

Student Signature: _____ Student E-mail address: _____

Parent Name: _____ Date: _____ Phone Number: _____

Parent/Guardian Signature: _____

Parent/Guardian Email Address: _____

Mailing Address: _____