

2010/2011 Chemistry 111 General Chemistry I: Objectives and Expectations

Morehead State University, Department of Biology and Chemistry

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Text: "Chemistry. A Molecular Approach" Tro. ISBN 978-0-13-1000065-0

You will also need a lab apron, safety goggles, towel and a notebook for laboratory.

CHEM 111. Principles of Chemistry I. (3-2-4); I, II. Prerequisite: MATH 152 or ACT Math score of 20 or higher. An introduction to stoichiometry and chemical equations, electronic structure of atoms and molecules, periodic properties, gases, phases equilibria, and solutions, with laboratory. Primarily for natural science and preprofessional students. This course satisfies the areastudies-natural and mathematical sciences for general education.

The essential goals for you are to:

- * learn principles and theories of general chemistry,
- * learn factual knowledge of general chemistry,
- * develop critical thinking and problem solving skills,
- * apply these principles and theories, to solve chemical problems related to your major, and to communicate to your peers global chemical problems or chemical problems that may be related to your major and your solution to these problems.

It is important to keep up with the material from the beginning. Falling behind is a sure way of creating problems. You are going to be busy in this course. Come to class having read the assigned material or prepared for lab. You are expected to read and understand the book **before** coming to class. Class time will be spent on helping you to understand the material for that day.

HELP!

What/Who do you have to help you?

Textbooks: There are many textbooks that cover essentially the same material. Sometimes reading the same concept in a slightly different way can make all the difference. I have a couple of alternative textbooks in my office if you want to take a look.

Reference Texts: There are several reference manuals located in Lappin 442 (~8:00 a.m. to 5:30 p.m.). These texts are also available in the library reference section. Please treat these texts with respect. They are expensive and the pages tear easily.

Tutors: A tutorial service that you can go to weekly at Allie Young 209. Call for an appointment at 3-5200 early in the semester before students of other chemistry classes schedule them full. The student Chemistry Club also does free tutoring. Times will be announced in class.

The Chemistry Club may also be providing free tutoring.

Me: A professor who is here for you from at least 8:00-5:00 each weekday. A teacher who will never make you embarrassed about asking any question about chemistry. I am here to help you. Please come and talk to me if you have any questions. If I am not in my office, check Lappin 427 or 441 anytime.

Laboratory:

You may purchase the lab manual, towel and apron in Lappin 426 *the first week of class*. Your laboratory course is designed to reinforce the concepts of the lecture, give you practice in observing, writing what you observe, performing simple reactions and making conclusions. Your attendance is imperative. An unexcused absence will result in a zero for that experiment. Lab reports should be typed (unless otherwise notified) and turned in one week after completion of the experiment. The format of the reports will be discussed at a later time. Notebooks will be periodically checked during lab periods

but not collected. A penalty of 10% will be assessed each day for report turned in late (weekends count). NO make-up labs will be given without an official excused absence. You must come and talk to me about attending another lab section **during the same week**. Make up labs must be performed in the same week as originally scheduled. Missing or not turning in a lab report for 3 or more lab periods will result in a failing grade for lab and the course as a whole. You must pass lab independent of lecture and vice versa.

Homework and quizzes:

Read the pages of the text for that day. **Work** the assigned problems. If you cannot work all of the problems, ask about them during class or come and see me. Be assured, other students will have the same questions. Written homework is due at the beginning of class.

There is much to be learned and a lot of stuff to be memorized. Normally, on most class days, we will have a quiz to see that you have memorized symbols for elements, charges of ions, definitions for that day, or whether or not you can work a problem that we covered the day before.

Additional problems will be assigned from the book or provided in class so come to class. It is to your advantage to work these problems. You will almost certainly see very similar problems show up on tests and/or quizzes. These assignments may or may not be collected.

We will be using the Chemskill Builder On-line System for electronic Homework. You will be required to purchase on-line access (~\$26) and complete the HW assignments on-line. The system allows you to complete the assignment as many times as you want. Only the highest score is kept. Once you obtain $\geq 80\%$, you will earn full credit (100%) for the section. Go to www.chemskillbuilder.com to purchase a Login Number. Then you must register and select "CHEM111" and section "010". The access is good for one year (just in case it is used in CHEM 112).

Tests:

Four 1-hour, in-class tests will be given on or near the specified dates in the course schedule. No make-up exams will be given. For official excused absences, your final exam score will also count as your missed test score. Calculators for the tests will be provided for you. In-class exams will be open answer.

Attendance:

Mandatory. 8 or more unexcused absences will earn a failing grade for the course. Please be in class on time. Coming in late is a big distraction to the rest of the class. Please come and talk to me immediately in the event you do miss a class. If you know you are going to miss a class, come and tell me BEFORE that date. No make-up quizzes will be given. You will have up to (2) quiz scores to drop during the semester. A missed quiz will simply be your dropped quiz. NO make-up labs will be given without an official excused absence. You must come and talk to me (or your instructor) about attending another lab section **during the same week**. Missing or not turning in a lab report for 3 or more labs will result in a failing grade for the course.

Academic Honesty:

Any form of cheating will not be tolerated. Your work is to be your own, not copied in part or whole from another source. The bare minimum penalty will be a zero for the assignment and will depend on the nature of the infraction and could result in expulsion from the class with a failing grade.

Class Etiquette:

Use of a cellular phone in any capacity is prohibited during class. Turn off cellular phones before class begins. If you have an issue where it is imperative that you are able to receive a call during class, come to me before class and explain your situation. General disruptions to class such as conversations,

snoring, etc. should be avoided. You may be asked to leave the class if you cannot be respectful to the rest of class or the professor.

Grading:

Lecture	75% Total	
Final Exam		20%
Tests (in class)		40%
Quizzes/HW/Chemskill		15%
Lab	25% Total	

A failing grade in the laboratory section will result in a failing grade for the course. You must pass both the lecture and lab independently to pass the course. Failure to attend or complete 3 laboratories (3 weeks of lab) will result in a failing grade for the course.

I will use the standard scale:

>89.95	=	A
79.95-89.94	=	B
69.95-79.94	=	C
59.95-69.94	=	D
<59.94	=	E

I do reserve the right to adjust(curve) this scale according to class performance. Rounding will occur to the tenths digit. Therefore, an 89.95 will round to a 90.00 score. An 89.94 will round to an 89.90 score.

Campus Safety Statement: Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at www.moreheadstate.edu/emergency.

Academic honesty: Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at <http://www.morehead-st.edu/units/studentlife/handbook/academicdishonesty.html>. For example: Copying information from the Internet is plagiarism if appropriate credit is not given.

Policy for Accommodating Students with Disabilities: Professional staff from MSU Academic Services Center (ASC) coordinates efforts to address accessibility needs and class accommodations with instructors of students who have learning or physical disabilities. Faculty will cooperate with the ASC staff to accommodate the needs of students taking departmental courses.

Chemistry 111 NCATE Syllabus Statement

The chemistry program will help students to develop the skills and mind-set necessary to attend health-related professional schools, chemistry and chemistry-related graduate schools and to work in industry and public sector chemistry jobs. It will partner with the community in projects that further economic development and enhancement of the area schools.

Conceptual Framework Outcomes (CFO's):

The Unit and the faculty within individual programs assess the degree to which its graduates:

- 1) Master the content knowledge, professional and the twenty – first century skills need to make an optimal contribution to “whole” student learning in education settings.
- 2) Are competent in the collection and use of data to inform decision – making and to demonstrate accountability for student learning.
- 3) Demonstrate professional dispositions
- 4) Are culturally competent and understand the regions from which they have come utilizing knowledge and experiences to effectively “bridge the gaps” (economic, achievement, and geographic) ensuring optimal learning for all students.
- 5) Engage in authentic field experiences in collaboration with committed school – based partners and are empowered to improve the quality of education throughout this region and beyond.

Student Learning Outcomes (SLO's): By the end of the course, the candidate will be able to:

Use Reference tools (1.1),

Make sense of materials they read (1.2),

Make sense of things they observe (1.3),

Use mathematical ideas and procedures to communicate, reason and solve problems (1.5-1.9)

Big Idea: Structure and Transformation of Matter (Physical Science) High School
Academic Expectations
2.1, 2.2, 2.4, 2.5
CHEM 111 General Chemistry I

Program of Studies: Understandings		Program of Studies: Skills and Concepts		Related Core Content for Assessment	
SC-H-STM-U-1		SC-H-STM-S-1 SC-H-STM-S-9 SC-H-STM-S-12	X X -	SC-HS-1.1.1 SC-HS-1.1.4	X X
SC-H-STM-U-2		SC-H-STM-S-1 SC-H-STM-S-9 SC-H-STM-S-12	X X -	SC-HS-1.1.4 SC-HS-1.1.5 SC-HS-1.1.8	X X X
SC-H-STM-U-3		SC-H-STM-S-8 SC-H-STM-S-10	X X	SC-HS-1.1.1	X
SC-H-STM-U-4		SC-H-STM-S-1 SC-H-STM-S-10	X X	SC-HS-1.1.2	X
SC-H-STM-U-5		SC-H-STM-S-2 SC-H-STM-S-7	X	SC-HS-1.1.3	X
SC-H-STM-U-6		SC-H-STM-S-3 SC-H-STM-S-4 SC-H-STM-S-5 SC-H-STM-S-6 SC-H-STM-S-10	X X X X X	SC-HS-1.1.5 SC-HS-1.1.6 SC-HS-1.1.7	X X X
SC-H-STM-U-7		SC-H-STM-S-11 SC-H-STM-S-14	X X	SC-HS-1.1.8	X
SC-H-STM-U-8		SC-H-STM-S-7 SC-H-STM-S-13	X X	SC-HS-1.1.6	X
SC-H-STM-U-9		SC-H-STM-S-15	X		

Big Idea: Energy Transformations (Unifying Concepts) High School Academic Expectations

- 2.1
- 2.2
- 2.3
- 2.4
- 2.5

Program of Studies: Understandings	Program of Studies: Skills and Concepts		Related Core Content for Assessment	
SC-H-ET-U-1	SC-H-ET-S-1 SC-H-ET-S-2		SC-HS-4.6.11 <i>SC-HS-4.6.12</i>	- X
SC-H-ET-U-2	SC-H-ET-S-9	X	SC-HS-4.6.1	X
SC-H-ET-U-3	SC-H-ET-S-4	X	SC-HS-4.6.2 SC-HS-4.6.3	X X
SC-H-ET-U-4	SC-H-ET-S-3 SC-H-ET-S-5	X -	<i>SC-HS-4.6.4</i>	X
SC-H-ET-U-5 SC-H-ET-U-6	SC-H-ET-S-6 SC-H-ET-S-7		SC-HS-4.6.10	
SC-H-ET-U-7	SC-H-ET-S-8	X	<i>SC-HS-4.6.5</i>	X
SC-H-ET-U-8	SC-H-ET-S-9		<i>SC-HS-4.6.6</i>	X
SC-H-ET-U-9	SC-H-ET-S-11	X	SC-HS-4.6.7	X
SC-H-ET-U-10	SC-H-ET-S-10 SC-H-ET-S-12		SC-HS-4.6.8	
SC-H-ET-U-11	SC-H-ET-S-12 SC-H-ET-S-13		SC-HS-4.6.9	
SC-H-ET-U-12 SC-H-ET-U-13	SC-H-ET-S-14 SC-H-ET-S-15			