

**FINGER LAKES COMMUNITY COLLEGE**  
**CHM 121-04 - General Chemistry I**  
**Dr. Robert O. Kalbach**  
**Fall 2005**

Classroom C322/323, TTh 9:30-10:50 a.m., & Laboratory C318, Tuesday 2:00-4:50 p.m.  
Office: C319 (394-3500 ext 7320) Office Hours: As Posted & By Appointment  
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**TEXTS**

1. Moore, Stanitski, and Jurs, *CHEMISTRY: The Molecular Science* 2002, Harcourt, Orlando, Florida
2. A Lecture/Homework/Laboratory Notebook(s)
3. Periodic Table/Calculator/ Computer Disks

**PREREQUISITES**

**MAT 145 College Algebra and SCI 102 Introductory Chemistry, and a willingness to work hard.**

**CHAPTER OUTLINE**

<b>Date</b>	<b>Chapter/Title</b>
T 8/30	Introduction to Chemistry
Th 9/1	Review of Math/Exponents/Significant Figures
T 9/6	Chapter 1 – The Nature of Chemistry
Th 9/8	Chapter 1
T 9/13	Chapter 2 – Atoms and Elements
Th 9/15	Chapter 2
T 9/20	Chapter 3 – Chemical Compounds
Th 9/22	Chapter 3
<b>T 9/27</b>	<b>Test 1 2-4:00 p.m. Chapters 1 to 3</b>
Th 9/29	Chapter 4 – Quantities of Reactants and Products
T 10/4	Chapter 4
Th 10/6	Chapter 4
<b>T 10/11</b>	<b>Activities Day – No Classes</b>
Th 10/13	Chemistry Class Cancelled
T 10/18	Chapter 5
Th 10/20	Chapter 5
<b>T 10/25</b>	<b>Test 2 2-4:00 p.m. Chapters 1 to 5</b>
Th 10/27	Chapter 6 – Energy and Chemical Reactions
T 11/1	Chapter 6
Th 11/3	Chapter 6
T 11/8	Chapter 7 – Electron Configurations and The Periodic Table
Th 11/10	Chapter 7
T 11/15	Chapter 7
Th 11/17	Chapter 7

<b>T 11/22</b>	<b>Test 3 2-4:00 p.m. Chapters 1 to 7</b>
<b>Th 11/24</b>	<b>Thanksgiving Day - No Classes</b>
T 11/29	Chapter 10 – Gases and the Atmosphere
Th 12/1	Chapter 10
T 12/6	Chapter 10
Th 12/8	Chapter 10
T 12/13	Class Review
Th 12/15	Class Review
<b>T 12/20</b>	<b>Comprehensive FINAL 2-4:30 p.m. Chapters 1 to 10 (except 8 &amp; 9)</b>

### Attendance

You are expected to attend - *and be on time* - for all classes and laboratories. Quizzes may be given within the first 15 minutes of any class or laboratory experiment, therefore tardiness will impact your final grade. Please turn off your cell-phone ringer in the classroom.

<u>Grade Distribution</u>		<u>Relative Grading Scale %</u>	
3 Tests & FINAL	75%	A (100-91.0)	
Laboratory	15%	B <sup>+</sup> (90.9-88.0)	B (87.9-80)
Quizzes	<u>10%</u>	C <sup>+</sup> (79.9-78.0)	C (77.9-70)
	100%	D <sup>+</sup> (69.9-68.0)	D (67.9-60)
		F ≤ 59.9	

**There are no make-up laboratories or quizzes.** Should you miss any test, then a special make-up test must be taken within three days of returning to class. You must present a valid reason, supported with written documentation to the satisfaction of your professor. Automotive failure is not an acceptable excuse.

### Class Notes

Be prepared to work. Read the textbook and keep a class notebook. I will discuss material that is not in the book, therefore class notes are very important. The class notes will reinforce the textbook, and the textbook will reinforce the class. Time restraints will not allow a discussion of everything in the book, *therefore outside reading is very important*. Learning is more than just reproducing what you were told in the classroom. Aim for a greater command of the material, especially the ability to apply what you have learned to new situations whenever relevant. General chemistry covers a lot of material, not all of which can be covered in class, therefore class time is at a premium, and it must be used efficiently.

Chemistry, like math and physics, builds upon itself, therefore, chemistry by its very nature is cumulative, and so are the tests. In the class outline the topics for each test are listed. Students are responsible for all topics listed for a specific test on the test date. Tests may include multiple choice, matching, fill in the blank, problems, and essay questions. Test questions will reflect material that was covered in class, as well as the textbook. The following questions are unacceptable: 1) Will this be on the test? 2) Is today's class important?

You cannot be "taught" everything in the classroom. **It is your responsibility to learn the material.** Most learning takes place **outside** of the classroom. Read the appropriate section(s) of the book **before** the material is presented in class. Then the class will make more sense. If you haven't read the book beforehand, try to learn what you can from the class. Absorb the general ideas, while taking thorough notes. Sort it out later, while studying from the book outside of class. If you must miss a class, get notes from a friend in the class. If you don't know anyone in the class, make a friend before the semester ends.

Chemistry requires some memorization, but the real objective is to learn the concepts and theories. Rote memorization will NOT get you through the course.

### **Laboratory**

The experiments illustrate general concepts and theories. However, they will sometimes be performed in the laboratory, before being discussed in class. A brief explanation of the laboratory will be given before each experiment. Students will work in teams of two. Generally, the work can be sub-divided, so that both partners are not doing all of the same tasks in each experiment. Each partners will turn in his or her individual report. It should be neat and complete.

You are expected to complete as much of the laboratory work as possible before lab class, and then **complete the experiment and lab report during the scheduled laboratory class.** If you miss a laboratory class, for any reason, you will NOT have an opportunity to make it up. **The Laboratory Notebook is due Friday, 12/16 @ 4 p.m., just before the end of the semester.**

*Any student who has a documented learning disability or handicap may be eligible to receive assistance from the College in completing class assignments. Please contact me by the third class meeting, if you have a learning disability/handicap. Additional information is available by contacting the Director of the Student Health Center at (585) 394-3500, ext 7297; the Chairperson of the Developmental Studies Department at (585) 394-3500, ext 7392; or the Coordinator of Services for Students with Learning Disabilities at (585) 394-3500, ext 7390.*

**Fall 2005**  
**General Chemistry I Laboratory Schedule**

**TUESDAYS**

Dress appropriately and **always wear protective eyewear in the laboratory**. If you do not wear protective eyewear you will be dismissed from the laboratory and will receive a zero for that experiment.

<b>Week</b>	<b>Date</b>	<b>Exp #</b>	<b>Title</b>
1.	9/6	©	Check-In - Laboratory Safety (pages 7 – 14)
2.	9/13	490/486	Exponents and Dimensional Analysis
3.	9/20	Exp 5	The Language of Chemistry
<b>4.</b>	<b>9/27</b>	©	<b>Test 1 2-4:00 p.m. Chapters 1 to 3</b>
5.	10/4	423	Determining the Empirical Formula
<b>6.</b>	<b>10/11</b>	©	<b>Activities Day – No Classes</b>
7.	10/18	387	Percent Water in a Hydrate
<b>8.</b>	<b>10/25</b>	©	<b>Test 2 2-4:00 p.m. Chapters 1 to 5</b>
9.	11/1	Exp 17	Heat of Neutralization
10.	11/8	Exp 18	Heat of Solution
11.	11/15	Exp 9	Atomic Spectra of Hydrogen
<b>12.</b>	<b>11/22</b>	©	<b>Test 3 2-4:00 p.m. Chapters 1 to 7</b>
13.	11/29	422	Studying Chemical Reactions
14.	12/6	482	Copper From Start to Finish
15.	12/13	©	Laboratory Check-out and Station Clean-up
<b>16.</b>	<b>12/20</b>	©	<b>Comprehensive FINAL 2-4:30 p.m. Chapters 1-10 (except 8 &amp; 9)</b>

Completion of the laboratories, and the laboratory reports, is a requirement for the course.  
All Experiments are Subject to Change