

Syllabus
Chemistry 132-102
Fall 2004
TTr 9:30-10:45 AM

Russell S. Andrews, Jr.
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GOALS AND OBJECTIVES: The goal of this course is to continue the comprehensive and rigorous introduction to the subject of chemistry begun with Chemistry 131. Specific objectives for this semester are to cover the properties and behavior of solids and liquids, the properties of solutions, chemical equilibria, kinetics, thermodynamics, and electrochemistry. A brief exposure to nuclear chemistry will be included. (Chapters 11, 13-17, and 19-21 in Brown, LeMay and Bursten).

TEXTBOOK: Brown, LeMay and Bursten, *Chemistry: The Central Science*, 9th Edition; Prentice Hall; 2003 (required). Wilson, *Solutions to Exercises*; Prentice Hall (recommended)

OFFICE HOURS: MWF 9-12 am; T 11-12 am; or by appointment.

ATTENDANCE POLICY: You are expected to attend all classes. Attendance is mandatory for exams and quizzes. A zero grade will be given on an exam missed due to an unexcused absence.

EXCUSED ABSENCES: Absences will be excused only for illness, death in family, official University business, or documentable emergency. Written documentation is required for any excused absence. To obtain an excused absence, call the instructor (460-7435) or the Chemistry Department office (460-6181) within one working day of the missed session (or prior to missing is possible). Documentation must be brought to the next session.

EXAMS AND QUIZZES: There will be three (3) regular hour exams and a final exam as indicated in the class schedule. There will also be six (6) 10-minute quizzes based on home work assignments. There will be NO makeup for missed 10-minute quizzes, but your lowest two quiz grades will be dropped. Makeups for regular exams will be based on your performance on the final exam for the material covered in the missed regular exam. Regular exams will be cumulative but will focus on more recent material. The final exam will include all material covered during the semester.

HOMEWORK: Homework assignments are given in the class schedule. You will be responsible for knowing the assigned material at the class meeting following the assignment. Homework assignments will not be collected but will be the basis for quizzes and some of the exam material.

GRADING: Grades will be based on the following percentage distribution:

Hour Exams (3)	60%	
Quizzes (6, drop 2)	10%	
Final Exam	30%	Grade Scale: A: 100-90; B: 89-80; C: 79-70; D: 69-60

STUDENTS WITH DISABILITIES: In accordance with the Americans with Disabilities Act, students with *bona fide* disabilities will be afforded reasonable accommodation. The Office of Special Student Services will certify a disability and advise faculty members of reasonable accommodations. *Please notify me ASAP if you qualify for special accommodations.*

CLASS SCHEDULE: See schedule on back

Tentative Schedule Chemistry 132-102 Fall 2004

<u>Week</u>	<u>Date</u>	<u>Subject</u>	<u>Homework</u>
1	Aug 24 Aug 26	Chapter 11: Intermolecular Forces, Liquids and Solids Chapter 11 continued	Do all exercises at the end of each chapter indicated in red (i.e, the ones that are answered in the back of the book).
2	Aug 31 Sept 2 Quiz 1	Chapter 11 continued Chapter 13: Properties of Solutions	
3	Sept 7 Sept 9	Chapter 13 continued Chapter 13 continued	
4	Sept 14 Quiz 2 Sept 16	Chapter 14: Chemical Kinetics Chapter 14 continued	
5	Sept 21 Sept 23	Chapter 14 continued EXAM 1	
6	Sept 28 Sept 30	Chapter 15: Chemical Equilibrium Chapter 15 continued	
7	Oct 5 Oct 7 Quiz 3	Chapter 15 continued Chapter 16: Acid-Base Equilibria	
8	Oct 12 Oct 14	Chapter 16 continued Chapter 16 continued	
9	Oct 19 Quiz 4 Oct 21	Chapter 17: Additional Aspects of Acid-Base Equilibria Chapter 17 continued	
10	Oct 26 Oct 28	Chapter 17 continued EXAM 2	
11	Nov 2 Nov 4	Chapter 19: Chemical Thermodynamics Chapter 19 continued	
12	Nov 9 Nov 11 Quiz 5 Nov 12	Chapter 19 continued Chapter 20: Electrochemistry Last day to drop course	
13	Nov 16 Nov 18	Chapter 20 continued Chapter 20 continued	
14	Nov 23 Quiz 6 Nov 25	Chapter 21: Nuclear Chemistry No Class – Thanksgiving Holiday	
15	Nov 30 Dec 2	Chapter 21 continued EXAM 3	
16	Dec 7	Review	
17	Tuesday Dec 14	Comprehensive Final Exam 10:30 a.m. – 12:30 p.m.	

Laboratory Policies and Remarks Chemistry 132-103L, Fall 2004

Instructor: Mrs. D. Roe
Office: 113

Time: Thursday 11:00-1:30

Phone: 461-1728
e-Mail: droe@usouthal.edu

OBJECTIVE- To provide an opportunity for students to perform laboratory exercises emphasizing course material in CH-132 and to further develop practical laboratory skills.

TEXT / REQUIRED MATERIALS- CH-132 Chemistry Lab Manual, goggles, pen, calculator, lock (combination or key) to secure lab drawer.

HOURS- Since I teach six labs, the best time to find me is during those class times. I do not mind answering questions during another lab session as long as it does not interfere with that class. Be sure not to interrupt my prelab discussion. In some situations I may ask you to see me later. Outside of class I am usually available in my office or by telephone during normal daytime hours (10-5). Also, I **will not** help with last minute requests for assistance with lab reports. In other words, don't wait till the day the report is due to ask for my help.

<u>Class Schedule</u>	Monday (rm. 108) 1:25 – 3:55	Wednesday (rm. 116) 1:25 – 4:45
	Monday (rm. 108) 6:30 – 9:00	Thursday (rm. 108) 11:00 – 1:30
	Tuesday (rm. 116) 2:00 – 5:20	Friday (rm 102) 1:25 – 3:55

ATTENDANCE- Attendance at all laboratory exercises is required AND you are expected to be on time. A student who arrives after the start of the prelab discussion will not be admitted and a grade of zero will be assigned. Refer to the CH-132 Departmental Policy for additional comments.

GRADING- Your lab grade is determined solely from the grades you receive on your lab reports. Exercise 27 will be graded as three separate reports for a semester total of 11 exercises. Refer to the laboratory schedule for a listing of exercises and dates. At the end of the semester the lowest report grade will be dropped. Make-ups will not be allowed regardless of the circumstance for the absence. A grade of zero will be assigned for any missed exercise. At the end of the semester, a zero resulting from an absence will automatically become that student's drop grade. Any zeros beyond one will be included in the average. Refer to the CH-132 Departmental Policy for further clarification. Failure to submit a report for a completed lab will also result in a grade of zero. In other words, it is to the student's definite advantage to be present at each lab session and to submit the required report when it is due, even if the report is incomplete!

LAB REPORTS- Lab reports are graded on a 100 point basis using the standard scale of 90-100 is an A. Lab reports consist of a prelab quiz (10 pts.), the completed data sheet(s) from the lab manual, written calculations, occasionally a graph, and the questions (10-20 pts.). The remaining 70-80 points will be spread among the data and calculation sections with point values determined by the subject matter and the amount of data taken. A prelab quiz will be given at the beginning of each session. The quiz will consist of 3-5 questions taken from the review questions found at the end of the lab procedure section of each exercise. A time of 5 minutes will be allotted for the quiz with no additional time given for late arrivals. The entire 10 points will be deducted from the 100 point grade for missing the prelab quiz. There will be no make-up for quizzes.

All data is to be recorded in **ink** directly on the report sheet. **Do not** transpose from scratch paper. **Do not** use white out. Pencil or ink may be used for the calculations and questions. Have me initial your report before you leave lab each session. Also, be forewarned! Your report should be your own!!! Any duplication of answers among students will be penalized!

Calculations are required. They will be graded for accuracy and for significant figures. They should be neat and orderly and labeled as needed so that I can follow your work. They should be separate from the report sheet and not crammed into the margins. You may use the back of the report sheet, if it is blank, or a separate page. I will count off for missing or improperly displayed calculations.

The Spectrophotometry Exercise (handout) and exercises 22 and 26 require the data generated to be displayed in a graphical format. These graphs must be computer generated (preferably using Microsoft Excel). A brief introduction to computer graphing will be provided. However, each student is responsible for his or her own computer access, including printing capability. **The Chemistry Department does not provide computer access.**

Points may be deducted from your grade for poor technique based on my observations of your actual performance in the lab: preparedness, proper use of equipment, ability to follow instructions, safety and housekeeping.

Completed reports are due at the beginning of prelab of the next scheduled lab session, even if you are absent! It is **your responsibility** to get your report to me on time! No report will be accepted for grading after that point and you will receive a zero for that lab. You will be given the opportunity to review your graded report at the next scheduled lab session. All graded reports must be returned to me that same lab session to receive credit for the grade. Graded reports may not be kept by the student.

DRESS POLICY- You must be properly attired to attend lab. I will not allow you to stay if you are not.

NO OPEN TOE SHOES (i.e. no sandals of any type)

NO SHORTS OR SKIRTS. (ankle length pants only)

NO HEAD COVERINGS OF ANY TYPE

NO TANK TOPS, SLEEVELESS OR MIDRIFF BARING TOPS.

Approved GOGGLES are required.

Any exceptions to the dress policy must be approved by and documented with the Laboratory Manager, M.R. Andrews.

CELL PHONES- **Turn it off!** If you have a situation which you feel warrants leaving it on talk to me personally.

CODE OF CONDUCT- All students must constructively participate to receive a passing grade. Inappropriate and/or disruptive behavior may result in dismissal from the laboratory.

STUDENTS WITH DISABILITIES – In accordance with the Americans with Disabilities Act, students with bona fide disabilities will be afforded reasonable accommodation. The Office of Special Student Services will certify a disability and advise faculty members of reasonable accommodations.

CHEMISTRY 132

General Chemistry II Lab**FALL 2004-REVISED 09/20/04**URL: <http://www.usouthal.edu/chemistry/laboratories.html>

Week/Experiment	Date	Topic
1/	Aug 23-27	Orientation/Check-in
2/Lab 21	Aug 30-Sept 3	Chromatography
	September 6	LABOR DAY HOLIDAY
3/Lab 29	Sept 7-13	Spectrophotometry
4/ Lab 22	Sept 20-24	Colligative Properties
5/ Lab 23	Sept 27-Oct 1	Chemical Kinetics
6/ Lab 24 Oct 4-8 Le Chatelier's Principle		
7/ Lab 27B	Oct 11-15	Qualitative Analysis-Anions
8/Lab 27A	Oct 18-22	Qualitative Analysis-Cations
9/ Lab 27A	Oct 25-29	Qualitative Analysis-Cations
10/ Lab 27C	Nov 1-5	Qualitative Analysis-Unknown Salt
11/ Lab 25	Nov 8-12	Weak Acids, Weak Bases, and Their Salts
12/ Lab 26	Nov 15-19	Investigation of Buffer Systems
HOLIDAY	Nov 22-28	THANKSGIVING HOLIDAYS
13/	Nov 29-Dec 3	* Check-out of Laboratory

***RETURN YOUR CHECK-OUT SHEET TO THE STOCKROOM AND GET YOUR LAB RECORD CLEARED OR YOU WILL BE CHARGED A \$50.00 PENALTY FEE.**

- NOTES:
- 1. Each student must secure the assigned drawer with a padlock by the 2nd lab meeting.**
 - 2. Payment of fees must be completed BEFORE 5:00 PM, Tuesday, December 7, 2004.**
 - 3. Check-out is to be completed on the last day that YOUR lab section meets.**