

Chemistry and Society, CHE112L-011
Spring 2008

M 12:00-1:40p.m. SC 464

Instructor: Gwen Fields Office: SC 442 Office Hours: M 11-12, R 8:15a.m.- 9:15a.m.
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corequisite: CHE 112 lecture **If you withdraw at any time from the lecture, you MUST also withdraw yourself from the lab**

This course is a general studies course and does not prepare students for further classes in chemistry, such as CHE115 or CHE120.

Required supplies: "Catalyst" lab manual

- A nonprogrammable scientific calculator
- Safety goggles with side shields

Student Learning Outcomes:

- 1) Students will be able to apply lessons learned in lecture to practical chemistry of everyday life exhibited in the laboratory.
- 2) Students will understand that everything we use in daily life is chemistry.
- 3) Students will develop theories on how concepts presented in lab can be used to improve their daily lives.

| <u>Date</u> | <u>Experiment</u> | <u>Page #</u> |
|-------------|--|-----------------|
| 1/14 | Check-in | |
| 1/21 | No Class – Martin Luther King, Jr. | |
| 1/28 | Alchemy | 11-15 |
| 2/4 | Density Layers | 17-20 |
| 2/11 | Energy in C and P Changes AND Paper Chromatography | 21-24 AND 75-80 |
| 2/18 | Atoms and Light | 25-28 |
| 2/25 | Nuclear Radiation and 1/2-Life of Ba-137 | 29-37 |
| 3/3 | Midterm exam (Alchemy thru Nuclear) | |
| 3/10 | No Class-Spring Break | |
| 3/17 | Ionic vs Covalent | 39-42 |
| 3/24 | Mole Relationships | 43-48 |
| 3/31 | pH and Flammability and Acids and Bases | 49-54 |
| 4/7 | Chemical Reactions | 55-60 |
| 4/14 | Aspirin Prep. | 67-74 |
| 4/21 | Syn. of Esters and Polymer Properties | 61-66, 83-88 |
| 4/28 | Final Exam (Moles thru polymers) | |

Grading Scale

Each Experiment is worth 50 pts.

50 x 11 = 550 pts.

73% of grade

Each test is worth 100 pts.

100 x 2 = 200 pts.

27% of grade

Total = 750 pts.

| | | |
|---|---------|--------------|
| A | 90-100% | 671-750 pts. |
| B | 80-89% | 596-670 pts. |
| C | 70-79% | 521-595 pts. |
| D | 60-69% | 446-520 pts. |
| F | 59% > | 446 pts. > |

Preparation for class: Each week you must come to class having thoroughly read and understood the experiment that you will perform that day. To ensure that you are prepared, a pre-lab quiz worth 10 points will be given at the start of certain lab periods. This quiz is 10 of the 50 points that each lab report is worth, or 20% of each lab. **If you are late for lab or miss that lab you MAY NOT make-up the quiz under any circumstances!!!!**

Data collection: Your report will also be graded on the accuracy with which you collect and record your data. Any data collected must contain the appropriate units, eg. g for grams, °C for degrees Celsius, cm for centimeters etc., as well as the appropriate number of significant figures or decimal places. For instance, if you use a balance which gives a mass to two decimal places, you must record both decimal places and not leave one or more out.

Calculations: You **must show the work** for any calculations done in the lab report. Points will be deducted if only the answer appears. There is not much space available on the supplement sheets so please write small and legibly, and be sure to include the proper units here as well.

Discussion questions: These should be answered in complete sentence form in legible writing. Answers should show understanding of the concepts of that lab. If asked what would happen if..... it is inappropriate to respond “the answer would be off”. State that a value would become high or low and explain why, not “off”.

**** All parts of the lab report are due at the START of the next lab period.** That typically means one week after the experiment was completed. Reports turned in beyond the first 15 minutes of lab are considered late. Late reports will be penalized two points per school day.***

Attendance: There is only one make-up lab granted for the session. If a lab experiment is missed you must contact the instructor prior to the experiment or at the latest, by 2:00 p.m. on the day of the missed lab. This means leaving a phone message or sending an e-mail with a phone number of where you can be reached. I will not make arrangements by e-mail; too much time involved. If you do not hear from me by 3:00 p.m. on the day of the missed lab, assume that I did not receive your message and try again. Arrangements must be made with the instructor in advance, DO NOT show up to the next lab period expecting to do an experiment without prior permission. It will NOT be granted for any reason at that point. More than 1 missed lab, with a zero grade, will result in a failing grade for the course.

Additional Safety Rule: In addition to the safety rules that you read and sign, there are no shorts or open toed shoes allowed in lab for any reason. You may keep an old pair of pants in your lab drawer if you can't remember to wear pants during the warm weather. If you arrive in shorts or sandals you **will not be allowed in lab** and will receive a zero for the experiment.

- Students not adhering to safety policies for laboratories may be dismissed from lab.

Honor Code: Students are expected to conform to the Student Honor Code

- (<http://www.nku.edu/~deanstudents/HonorCode.htm>). Cheating will not be tolerated. In accordance with the Code of Student Rights and Responsibilities, faculty members have the right to determine actions to be taken when a student is caught cheating.

Students with disabilities who require accommodations (academic adjustments, auxiliary aids or services) for this course must register with the Disability Services Office. Please contact the Disability Service Office immediately in the University Center, Suite 320 or call 859-572-6373 for more information. Verification of your disability is required in the Disability Services Office for you to receive reasonable academic accommodations. Visit the Disability Services website at www.nku.edu/~disability/.

Faculty members reserve the right to dismiss or to have removed a disruptive student from their classrooms

- Students are responsible for reading and understanding all items on the syllabi. Any items not understood must be brought to the attention of the instructor within the first two weeks of class.

This syllabus is subject to change.