Instructor Dr. Nathan J. Malmberg

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Required for Lab Electronic Playground by Elenco Electronics, Inc.

Lab Meets Every weekday 1-3 PM in Wood 115

**Description** The purpose of this lab is to illustrate chemical principles related to the topics associated with lecture. Several experiments will introduce measurement and generalization based on measured data. Other experiments will allow us to address issues associated with the world around us.

Further Information about disabilities, inclement weather, incomplete grades, etc. can be found in the university-wide syllabus attachment located at <a href="http://www.okbu.edu/academics/forms/Syllabus\_Attachment\_Fallo8.pdf">http://www.okbu.edu/academics/forms/Syllabus\_Attachment\_Fallo8.pdf</a>. The dates in this attachment will obviously not apply to this course, but the policies will be the same, for the most part.

**Academic Dishonesty** is unacceptable in any environment, but particularly so in an environment of Christian higher education. Examples of academic dishonesty include, but are not limited to,

- Falsification of laboratory observations or measurements.
- Hiring another individual or company to perform your laboratory experiments or analysis.
- Copying data or writeup from another student.
- Copying information from any source without proper citation.

Students who engage these or other dishonest activities will receive a zero for the assignment, and may be subject to further disciplinary measures by the university.

**Safety** Safety rules must be obeyed at all times. Failure to follow safety rules can result in serious injury or even death. Safety rules include:

- Always follow the directions of the instructor or lab assistant.
- No unauthorized experiments.
- No food or drink in the lab at any time.
- Know where all the exits are located.

Cleanliness Maintaining a clean work area is both a safety issue and a fiscal issue. The instructor or T.A. will be authorized to deduct up to 40 % from your lab score for the day if your personal work area is not clean at the end of the lab period.

Grades will be based on lab handouts (due at the end of each lab period), quizzes (administered at the beginning of each lab period and covering labs from the previous period, as well as the reading for the current lab period), the lab final and participation in a class-wide debate. Lab handouts and quizzes will be worth equal amounts toward the final lab grade, which will be determined according to the following distribution:

 $\begin{array}{lll} \mbox{Handouts and Quizzes} & 60 \ \% \\ \mbox{Lab Final} & 20 \ \% \\ \mbox{Debate} & 20 \ \% \\ \end{array}$ 

**Attendance** Attendance is required for laboratory. Any lab for which you do not show up will count as a zero. Exceptions will be made for:

- University-sponsored activities. You must make alternative arrangements with me at least a week in advance.
- Documented medical absence.
- Death in the family.

If you do miss a lab because of one of the occasions above, and need to make alternate arrangements, please talk to me as soon as possible. Makeup lab times have been scheduled, but we do need to prepare for these in advance.

**Tentative Lab Schedule** Lab will proceed according to the following schedule (barring unforseen circumstances).

| Date | Lab                        | Reading           |
|------|----------------------------|-------------------|
| 1/5  | Syllabus and VASS          | No Reading        |
| 1/6  | Air Experiments            | Lab Handout       |
| 1/7  | Debate Topics              | Handout           |
| 1/8  | Making Graphs              | Lab Handout       |
| 1/9  | Makeup Lab                 | Previous Handouts |
| 1/12 | An Inconvenient Truth      | Handout           |
| 1/13 | Biodiesel Preparation      | Lab Handout       |
| 1/14 | Debate Updates             | No Reading        |
| 1/15 | Biodiesel Characterization | Lab Handout       |
| 1/16 | Makeup Lab                 | Previous Handouts |
| 1/19 | Electronic Playground      | Lab Handout       |
| 1/20 | Electronic Playground      | Lab Handout       |
| 1/21 | Debate Update              | No Reading        |
| 1/22 | Water Purification         | Lab Handout       |
| 1/23 | Air Pollution              | Lab Handout       |
| 1/26 | Plastics                   | Lab Handout       |
| 1/27 | Debate                     | No Reading        |
| 1/28 | Lab Final                  | No Reading        |
| 1/29 | Makeup Lab                 | No Reading        |