Physical Science Laboratory (NSCI 101)
March 24-May 11, 2013
Sunday 1715 - 2115, Camp Lemmonier Classroom

Instructor: Dr. Chris Gregg
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Class Website: `http://ecosimulation.com/nsci100`
Office Hours: By appointment.

Textbook: Hewitt, P. G., Baird, D. (2011). *Lab Manual for Conceptual Physical Science (5th ed)*. San Francisco, CA: Pearson Addison-Wesley.
Other Required Materials: Laboratory Notebook; basic scientific calculator (must have a square root button and `sin` and `cos` buttons).
Prerequisites: MATH 012 or higher

Course Outline:

Sunday 24 March ..... Lab #1
Sunday 31 March ..... Lab #2
Sunday 7 April ..... Lab #3
Sunday 14 April ..... Lab #4
Sunday 21 April ..... Lab #5
Sunday 28 April ..... Lab #6
Sunday 5 May ..... Lab #7
Sunday 11 May ..... **Cumulative Final Lab Practicum**

Attendance and Student Preparedness: Attendance is mandatory. In the event a student must miss class, prior consultation with Dr. Gregg will be expected. Students are required to pre-read the lab directions before arriving in class.

Homework: Homework will consist of pre-reading the lab directions. Labs will be completed during class time and should not extend past the end of class.

Grade Policy:

1. Late work will only be accepted by prior agreement with Dr. Gregg. If you need extra time on an assignment, email Dr. Gregg at least twelve hours prior to class time. Except for extenuating circumstances, agreed upon late work will be due at most one week late.

2. Students may appeal grading decisions, and re-grades will be handled on a case-by-case basis. Students who wish for a regrade on an assignment should prepare a rebuttal in writing prior to requesting the regrade, and the rebuttal should clearly indicate why the student believes the grade is incorrect.

3. NCSI 100 and NCSI 101 will receive separate grades, which will be independent of each other.

Course Description: NSCI 101 Physical Science Laboratory (1) (For students not majoring or minoring in a science. Fulfills the laboratory science requirement.) Prerequisite: MATH 012 or higher. Prerequisite or corequisite: NSCI 100. A laboratory study of the basic principles of physics and chemistry, with applications to geology, oceanography, meteorology, and astronomy. The objective is to apply the scientific method and use scientific and quantitative reasoning to make informed decisions about experimental results in the physical sciences. Discussion and laboratory activities cover the development of scientific thinking, the scientific method, the relationships among the various physical sciences, and the role of the physical sciences in interpreting the natural world.

Course Objectives: After completing this course, you should be able to

1. Apply the scientific method to explore and/or confirm physical science concepts,laws, and theories.
2. Use technology and scientific reasoning to collect, analyze, and present data.

Grading: Grades in this course will be determined as follows: There will be seven lab exercises, which will be completed in class and described in a lab notebook. There will also be a final lab practicum on the last day of class. Your final course grade will be determined as follows:

Labs 1–7	10% each
Final Lab Practicum	30%

Individual Labs:

1. Week 1: The Scientific Method
2. Week 2: Equilibrium, Forces, and Motion; Gravitational Forces
3. Week 3: Fluid Mechanics, Thermal Energy, & Thermodynamics; Heat Transfer, Change of Phase
4. Week 4: Electricity & Magnetism; Light & Sound
5. Week 5: The Atom; Elements & Mixtures
6. Week 6: Molecules & Chemical Reactions; Acids/Bases, Oxidation/Reduction, Organic Chemistry
7. Week 7: Earth Science; Atmospheric Science & Astronomy
8. Week 8: Lab Practicum