

NTSC 395
SPRING 2010

Instructor: Dr. David Slavsky

Class Meetings: W, 4:15-6:45 in DH 732

Office Hours: M, W, F at 10:20-11:30 in LSB 430 (check in LSB 315 if I am not in my office) or by appt.

Contact Information: LSB 430, 773-508-8352; fax: 773-508-3506; email:
dslavsk@luc.edu

Text : *Rising Above the Gathering Storm*, National Academies Press:

http://www.nap.edu/catalog.php?record_id=11463

and handouts provided in class and posted on line

Course Web-Site:

<http://www.luc.edu/faculty/dslavsk/courses/ntsc395/ntsc395-2010.shtml>

Course Description

This course, designed for students in the School of Education, is intended to provide background not only in science content, but to demonstrate how mathematics seamlessly helps us to describe the world around us. Using examples from many of the sciences (focusing on physics, astronomy and meteorology), we will design and conduct activities that will help reinforce the connections between science and math.

These activities will include studying density, motion, force and work, geometry, and the motion of astronomical objects in the sky. These activities will also help reinforce mathematical skills in algebra, geometry, and exponential functions. We will focus much time and attention on the use and interpretation of graphs.

Additionally, we will read and discuss the online report, *Rising Above the Gathering Storm*. This report is available free online; use the link given above and follow the download instructions.

Grading

Your grade in this course will be based on your performance on written assignments, your group's presentations, two in-class hour exams, and a final exam.

Each week (or roughly each week) you will be asked to submit written assignments such as problem sets, lab reports, lesson plans, or written responses to "thought questions."

Throughout the semester, we will read and discuss *Rising Above...* I will ask all students to read the executive summary and Method (Chapter 4). A few weeks into the semester, each group (four groups of six students each) will take primary responsibility for two of the remaining 8 chapters (so that each group will lead the class discussion twice this

term). Each group will summarize the key elements of the chapter, lead a classroom discussion, and pose questions to the class. Each student will receive both a group grade and individual grade for this portion of the work. I will provide more details about these group led discussions next week.

The two hour exams will take place on Feb. 24 and April 14. The first will cover material done in class through Feb. 17; the second will cover material from Feb. 24 through April 7, although continuity of coverage may allow some material from the first half of the course to appear on the second exam. The exact scope of the exams will be discussed thoroughly in class prior to exam dates.

The final exam will be given in this room at 4:15 on W, May 5. The final will be comprehensive and will cover all material in the course.

Your final grade will be computed according to:

25% assignments
25% group discussions
25% hour exam average
25% final exam average

Final averages > 90% will earn an A for the course; final averages > 80% will earn a B for the course; final averages > 60% will earn a C for the course; passing will require a final average > 50%. I reserve the right to lower the thresholds for certain grades, in other words, final averages in the 80s might earn A's, but I will not under any circumstances raise the thresholds for grades.

Policies for missed assignments or exams

Students are expected to take exams on the scheduled dates. Make up exams for the hour exams will be given only if one (or more) of the following conditions applies:

- Illness or hospitalization requiring physician's intervention.
- Death of a close family member.
- Unavoidable court date (including jury duty).
- Representing Loyola in an official capacity which requires your absence from class (i.e., debating team, model UN, intercollegiate athletics).
- Religious observance that prohibits normal work/school activities on that day.

Travel, unless it is travel for one of the five reasons listed above, is not an approved reason for missing exams. In all cases, students must provide written, relevant and verifiable documentation of the circumstances.

Students who are unable to submit an assignment on time should speak with me as soon as possible to arrange for an alternate assignment or alternate due date.

Policy Regarding Academic Dishonesty

As a Loyola faculty member for nearly 30 years, I have learned that Loyola students understand both implicitly and explicitly the meaning and value of academic honesty. In my Loyola career, I have encountered very few occurrences of academic dishonesty. It is my expectation that each of you will continue to meet the high standards of conduct that I have come to expect from Loyola students.

The written assignments must be the result of your own effort. While it is often very useful for students to work together on assignments, be careful that the work you submit must clearly be the result of your own efforts. Students will receive a grade of zero for the first occurrence of copied assignments during the semester; a second such instance will result in a grade of F for the course.

Academic dishonesty on quizzes or exams, which includes specifically but not exclusively copying from another's paper, using crib notes, transferring information to another student during the exam, will result in a grade of F for the course.

In all cases of academic dishonesty, I will send copies of the material to the Dean's Office for inclusion in your permanent Loyola file.

General Comments

This is a class in which active participation will not only help you earn the grade you seek but will also enhance the quality of your learning experience tremendously. I encourage students to ask any question of me at any time; if you find you have questions about the assignments, please feel free to call, email or stop by my office as your schedule and flexibility permit. If my stated office hours are not convenient for you, please speak with me about finding a mutually convenient time for us to meet.