# **MAE 447 Spring 2007 Course Outline**

**Instructor:** Bernard Maskit

**Office:** Math 5-112

**Telephone:** 632-8257

e-mail: bernie@math.sunysb.edu

**Office Hours:** Mondays: 1:00 - 2:00 p.m.

Tuesdays: 12:00 - 1:00 p.m.

Wednesdays: 2:00 - 3:00 p.m.

Class meeting time and place:

This course is primarily a writing course, but it will also include classroom discussions of relevant issues, particularly issues related to dispositions. Each student will write an essay, eight to ten pages long, on a topic to be chosen from the list below. After the first draft is completed, each student will read his or her paper to the class, in order to initiate discussion of the relevant issues.

## Course Objectives:

- 1. Students will write in a manner that is grammatically correct and that clearly expresses their ideas.
- 2. Students will write essays with clear and cogent arguments based on reliably obtained facts.
- 3. Students will demonstrate awareness of the NYS Code of ethics and of the dispositions that are appropriate for teachers.

### TIMELINE:

Ordering of topics due: 01/30/07

First draft of paper due: 03/16/07

Final draft of paper due: 05/04/07

### **Directions for paper:**

Each of the scenarios below presents a teacher with a problem, or perhaps more than one problem. Read the five topics, place them in the order you would like to write about, and send an e-mail to the instructor with your name and your chosen order by 01/30/07. The instructor will respond with an assignment of a topic.

Once you know your topic, use the library and reliable internet sources to gather relevant information concerning the problem(s) in the scenario.

Write an eight to ten page paper in which you (a) clearly describe the problem or problems indicated; (b) using appropriate format (APA or Chicago), indicate that you have read a reasonable amount of relevant literature concerning the problem; (c) indicate that you are aware of any PEP dispositions relevant to the problem; (d) indicate that you are aware of any relevance of the NYS code of ethics; (e) express your resolution of the problem(s), and explain why you think your solution is best.

- 1. Your high school algebra class has about ten reasonably bright students, who are all doing well in mathematics class and who all hang out together; the class also contains about ten other students who also all hang out together, but these students all have difficulty learning math. The parents of the first group are loud in their insistence that their children be grouped together and be given extra advanced work, while the parents of the second group are loud in their insistence that their children be placed in heterogeneous groups, each of these parents saying that another child in this group is a "bad influence" on the others. How do you deal with the classroom problem? How do you deal with the parents?
- 2. Your class is learning about 3-dimensional shapes and volumes, and you have some models of these shapes for your students to handle, measure, etc. There is a "special" student in your class whose tactile senses work differently; this student is learning about these shapes etc. visually, using a special computer program. The other students are fascinated by the computerized special effects; the parents of the "special" student complain that the other students are distracting their child, and that the special equipment is for the use of their child only; the parents of the other children complain that their children are being deprived because their children do not have access to this expensive piece of equipment. How do you deal with the classroom problem? How do you deal with the parents?
- 3. Robin and Hilary are working together in the same group on a geometry problem. Robin quickly writes down an equation representing the problem, and starts leading the group into a discussion of how to solve the equation. Hilary complains that s/he thinks geometrically, doesn't want to solve the problem algebraically and doesn't want to follow Robin's lead. (You may choose the gender of these students to suit your argument.) How should you handle this situation?
- 4. You ask the students on an exam to use their calculators to find the inverse cosine of .87654322, expressed in degrees to 8 decimal places. Lee's answer is 28.7770 degrees. You deduct 2 points out of 10 for this only partially correct answer. Lee complains, and says that his/her last year's teacher, Mr./Ms .Miller, who is your colleague, told them that, when using the calculator, they must use exactly four decimal places, no more and no less. Lee goes on to insist that if s/he does not get full credit for this problem, s/he will go to the principal and/or parent to complain. How do you handle the situation with the student? How do you handle the potential situation with parent, colleague and/or principal?
- 5. Alex shows some signs of understanding when called on, but never volunteers. S/he does very little homework, and is close to failing on exams. Alex's parent comes to open school night and says that s/he is concerned but is overburdened with work and other family responsibilities, and has no time or energy to help Alex.

### **Grading:**

Importance and relevance of quoted facts - 20%

Cogency of argument and fairness - 20%

English usage, including grammatical structure - 20%

Expressions of awareness of dispositions and thical questions - 20%

Engagement in classroom discussions - 20%

**Note:** If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, you are urged to contact the staff in the Disabled Student Services office (DSS). They will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential. Note that we cannot make special arrangements for students with disabilities except for those determined by DSS.