



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
UNITED STATES MILITARY ACADEMY
West Point, New York 10996

MADN-MATH

26 July 2007

MEMORANDUM FOR RECORD

SUBJECT: Teaching Philosophy

1. The purpose of this document is to provide a teaching statement for instructor duties in the Department of Mathematical Sciences at the United States Military Academy.
2. A good teacher must be *organized, enthusiastic* and *prepared* about the course material.
 - a. **Organization.** Presenting material in an organized fashion helps cadets process information more efficiently. I will always try to speak with correct vocabulary, sum up thoughts and/or topics concisely and outline future discussions/lessons. This will help cadets organize their thoughts and thus speed-up the learning process.
 - b. **Enthusiasm.** I hope to increase enthusiasm in the classroom by showing my own love of math. Everyone prefers to learn from someone who clearly enjoys working in his or her own chosen field, as I do!
 - c. **Preparation.** Preparation and enthusiasm will work hand-in-hand with organization to improve classroom experiences for both the cadets and myself. The classroom will run more efficiently when the needed tools are at hand and the proper scaffolding is laid. My understanding of the mathematics to be discussed in the classroom is vital to learning; I will ensure proper preparation in this area as well!
3. A good teacher must be *sensitive* to the learning needs of the cadets and use proper *assessments* as a check on learning.
 - a. **Sensitivity.** To be successful, a teacher must balance the pace of teaching with the pace of the cadets' learning. This may lead to not meeting all of the "Lesson Objectives" for the day. This is OK as long as the goal of maximizing cadet learning and retention of knowledge is met.
 - b. **Assessment.** In order to give effective feedback, learning must be closely monitored with appropriate assessments. I will use informal interview techniques, class discussions, cadet presentations, quizzes, homework and tests. Once I better understand the level of cadet learning, I can decide to remediate, if necessary, or continue with new material.
4. I believe a good teacher must constantly deliver *positive reinforcement*. Though easy to overlook, positive reinforcement is one of the best ways to keep cadets motivated to learn. I will constantly make the effort to give positive commentary about cadets' thinking. By writing positive, constructive criticism on student papers, complimenting student responses to in-class questions and encouraging further discussion of cadet-initiated questions, I believe I will help cadets feel proud of their accomplishments.

5. A good teacher must continue to *learn* and strive for *creativity* both personally and in the classroom.

a. **Learning.** In order to maintain my enthusiasm for the mathematical sciences I will continually polish my skills. Through contact with peers, civilian instructors and senior officers, reading journals and doing research I will continue to add to my core knowledge. As a result I hope to increase my enthusiasm for learning and pass it on to cadets!

b. **Creativity.** I will often use technology (i.e. Mathematica & Excel) to illustrate specific ideas being considered in class beyond what is required of the Lesson Objectives. I will also try to incorporate an inquiry-based learning activity, board problem or computer exercise, in each of the lessons I teach. Through inquiry-based learning exercises I hope to increase enthusiasm for learning and make math fun!

6. See the undersigned with any questions; Thayer Hall, Room XXX, phone at 845-938-9999 or email at major.math@usma.edu.

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