

Teaching at USMA

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Two Apgar Awards This Year!

There were seven nominations for the 2004 Apgar Award, and because of the extraordinarily high quality of these projects, we are conferring two separate awards at this year's Academic Convocation on 19 August. For those new to USMA and unfamiliar with this award, it was donated by Mr. Mahlon Apgar to **recognize, encourage, and reward faculty members at the Academy by supporting teaching projects that improve cadet learning.** Full information about the criteria for this award can be found on the CTE website under "Programs & Services."

**COL Scott Hampton, MAJ Jamie Efaw,
MAJ Silas Martinez, MAJ Toya Davis, and
MAJ Samantha Breton of D/BS&L**

BS&L's collaborative team, headed by COL Scott Hampton, shared their knowledge of learning theory, psychology, and pedagogy in an innovative re-design that incorporates principles of Officership throughout the core psychology course, "General Psychology for Leaders" (PL100), effectively integrating the substance of the former MS202 intersession course. As COL Kolditz explained in his nomination, "When you walk into a PL100 class, you will always 'see' how the psychological concepts literally 'come to life' in military applications that promote the values of Officership." In addition, Dr. Don Snider, GEN(Ret) Franks, and COL(Ret) Swain from the SCPME, highly regarded experts on Officership, had laudatory comments and labeled this innovative re-design a "model" core course for the Academy. Since the Apgar Award is designated for instructional projects that **"expand the cadets' horizons and their potential contributions as leaders and Army officers,"** it is apparent that assisting fourth-class cadets in understanding the principles of Officership as well as principles of human behavior positively contributes to their leader development and provides a strong base for their becoming more ethical and effective leaders. The nominees provided qualitative and quantitative assessment data to demonstrate the course's positive impact on cadets♦

Dr. Peter Hanlon of D/EE&CS

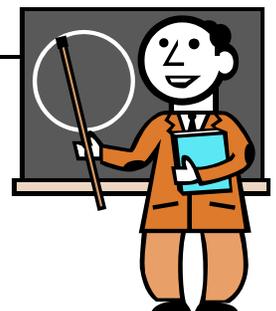
As COL Gene Ressler points out in his nomination, Dr. Hanlon's innovative project addresses a major concern for our nation (and to a lesser extent USMA) in the well-documented problem of U.S. students' lack of willingness to engage in the work of mastering the principles and practices necessary for successful engineering design. Dr. Hanlon, following his hypothesis that carefully designed, hands-on experience with construction of electronic devices will improve both actual learning and cadet perception of EE as something interesting to study, created a series of custom, hands-on mini-projects that reinforce fundamental course concepts. He has literally transformed the pedagogy of instructors in his department, thus addressing the Apgar Award's criterion, **"the faculty member's commitment to new teaching pedagogy and skill development among teaching peers."** Through these mini-projects, instructors can more accurately assess cadet understanding in areas and at levels that were previously much more difficult, and Dr. Hanlon's colleagues are now actively investigating other custom, hands-on projects that will further improve learning in their courses. These projects also develop cadets as leaders because they depend on personal attributes that leaders must have, such as following complex instructions with perfect attention to detail and appreciating complex, cause-effect relationships♦

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Something to Help You and Your Cadets!

As many of you know, we try to develop the CTE web page to be useful to faculty members, and I'd like to point out a feature that is under-utilized and can be an asset to both you and your students—our “Learning Assessment” system.

Classroom Assessment, a system developed by Pat Cross and Tom Angelo,* is a method for helping instructors assess the day-to-day learning of student in class. We adapted their principles to class preparation and provide a system for similar anonymous feedback from students on their experience of learning in out-of-class assignments.

We know from educational research that one of the major reasons college students fail to prepare for class, especially in terms of reading assignments, is that they don't have experience learning from textbooks and regard the assignments as unnecessary. That belief is reinforced when they are successful in courses when they've failed to prepare.

However, we also know from research that linking the assignment very directly to the class session and having some “deliverable” connected with the reading assignment is critical to having students complete the assignment. That deliverable should not be onerous, which is why the CTE developed the “Learning Assessment” system from the Cross and Angelo model.

If you go to the CTE website (url in our masthead), and click on “Cadet Feedback,” you'll see a listing for the Learning Assessment system. The process is clearly explained there. Here's an example of how it can be used.

A science teacher asks his students to read a chapter in the course textbook, but he knows that students have difficulty with science texts, and he wants to encourage their reading. He directs them to do “Muddiest Point#1” in the Learning Assessment system through an e-mail message. When the cadets click on the url in their instructor's message, they see this:

Muddiest Point #1

Respond in one or two sentences:

What aspect of the assignment is least clear to you?

Cadet writes response in text box.

The instructor will receive an e-mail message through Outlook from each cadet who responds, but the messages will be anonymous. This enables the students to express confusion in a “safe” way, and it helps the instructor identify areas to focus on in the next class session. Several years ago an instructor in D/Physics told me that he asked his yearlings to do “Muddiest Point #1” after a particularly challenging but important course reading. What amazed him was that he received responses that not only addressed that lesson but also the preceding two weeks of course material that he had assumed the cadets had mastered!

The Learning Assessment system is not something you'd use for every assignment, but you might check it out to see how it can be used effectively in the course(s) you are teaching to help both you and your cadets. ♦

* Thomas A. Angelo and K. Patricia Cross (1993). *Classroom Assessment Techniques, A Handbook for College Teachers*, 2nd Ed. Jossey Bass Publishers.

USMA Learning Assessment System

Please select the type of assessment **your instructor has requested**.
Your response will be mailed directly to your instructor and only your instructor.

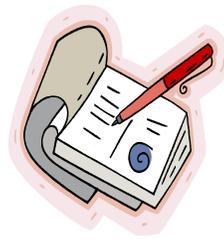
<u>Minute Paper #1</u>	<u>Minute Paper #2</u>	<u>Minute Paper #3</u>	<u>Muddiest Point #1</u>
<u>Muddiest Point #2</u>	<u>Self Assessment #1</u>	<u>Self Assessment #2</u>	<u>Applications Card</u>
<u>Abstract</u>	<u>One Word Journal</u>	<u>Documented Problem Solution</u>	<u>Learning Log</u>

The instructor has reviewed each of these choices and decided that for this particular assignment, he'd like the cadets to respond to Muddiest Point #1, and his e-mail messages directs the students accordingly. When the students click on Muddiest Point #1, they see the following:

CTE Fall Schedule

Each of the sessions listed below is designed to be self-contained, and all faculty members are invited to attend any or all of them!

Mark your
calendars
now!



Brown Bag Series

The CTE Brown Bag sessions are designed to be a time for faculty from a variety of disciplines to learn about and/or discuss topics related to teaching and learning that are of interest to them. All of the following sessions take place on two consecutive days (a Thursday and a Friday) to accommodate faculty members' schedules. All are from noon-1315 in Thayer Hall, Room 120.

26/27 August - Cadets Remembering Teachers

Last year, the CTE commissioned a cadet to videotape some of his fellow cadets responding to this prompt: *Think of an instructor at USMA who is memorable for you, and without mentioning any names, please describe what that instructor did that helped you learn and/or enjoy learning.* Join us for a viewing of this 15-minute videotape and a discussion of what these cadet responses suggest about our teaching.

23/24 September - What Makes Teachers Great

Professor Ken Bain of New York University recently published a book on this topic based on his research. Read his summary article [available on the CTE web page in the Brown Bag description] and join us for a discussion of how Prof. Bain's insights may inform (improve?) our teaching.

21/22 October - Teaching, Learning, and Their Counterparts

There really is nothing "new" in education—just a need to learn from the best thinkers, as this "aged" but provocative article by Mortimer Adler indicates (available on the CTE Website). Read it, and come prepared with ideas you'd like to challenge or affirm from your own experience.

18/19 November - Engaging Students in Learning

Recent research indicates that our cadets should be among the most engaged learners among undergraduates nationally. Yet many instructors new to USMA are surprised that what they observe is a lack of engagement. Are there ways that we can, inadvertently, lessen cadet academic engagement? Some recent internal reports suggest that this may be true. Join us to explore this topic and discover ways to promote cadet engagement in learning.

TALENT* on Wednesdays!

*TALENT is our acronym for Teaching And Learning Effectively using New Technologies, and we will address the following topics in sessions this semester. Each session is from noon-1315 in Thayer 120:

8 September - Dangers of PowerPoint

PowerPoint is widely-used to produce slides for briefings and presentations. Because it is a familiar tool for many USMA faculty members, it seems a natural candidate for classroom use. However, the limitations of Power Point can actually undermine the effectiveness of in-class presentations.

We will discuss the drawbacks and dangers of Power Point for in classroom presentations. "The Cognitive Style of Power Point," a provocative essay by Edward R. Tufte, will provide some inspiration and insight for our discussion.

13 October - Effective use of PowerPoint

Despite their limitations (see 8 September), PowerPoint and other slide-making software can aid in development of effective classroom presentations. We will discuss how to avoid the pitfalls of slide-based presentations, PowerPoint in particular.

10 November - Visualization and Plotting

Visual representation of relationships, concepts and data can be powerful tools for both instructors and students. At USMA we have a number of software tools to aid in the construction of plots and other graphics. Among these are Excel and Mathematica. Bring ideas for plotting and visualization, and we will discuss how to realize these ideas with the tools available.

8 December - Blackboard at USMA

The Blackboard course-management system comprises many tools and templates for the development of course web sites. Join us as, after almost three full semesters of academy-wide deployment of Blackboard, various faculty members share their best practices so that you see applications that you might want to try in your courses.

13 Principles of Learning and Teaching

1. When the subject matter to be learned possesses meaning, organization, and structure that is clear to students, learning proceeds more rapidly and is retained longer.
2. Readiness is a prerequisite for learning. Subject matter and learning experiences must be provided that begin where the student is.
3. Students must be motivated to learn. Learning activities should be provided that take into account the wants, needs, interests, and aspirations of students.
4. Students are motivated through their involvement in setting goals and planning learning activities.
5. Success is a strong motivating force.
6. Students are motivated when they attempt tasks that fall in a range such that success is perceived to be possible but not certain.
7. When students have knowledge of their learning progress, performance will be superior to what it would have been without such knowledge.
8. Behaviors that are reinforced (rewarded) are more likely to be learned.
9. To be most effective, reward (reinforcement) must follow as immediately as possible the desired behavior and be clearly connected with the behavior by the students.
10. Directed learning is more effective than undirected learning.
11. To maximize learning, students should “inquire into” rather than “be instructed in” the subject matter. Problem-oriented approaches to teaching improve learning.
12. Students learn what they practice.
13. To be most effective, supervised practice must occur as a part of a functional educational experience.

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Where do these 13 Principles come from?

They are printed here as valuable and important aspects of learning and teaching, but you might be interested to learn that they were extracted from a 1993 book, *Methods of Teaching Agriculture*, by Newcomb, McCracken, and Warmbrod, which indicates how universal these principles really are. They apply to the teaching/learning situation in any discipline, and I invite you to reflect on how they apply to your teaching situation♦