



Teaching at USMA

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Welcome!

As newly assigned faculty members, you are joining a corps of colleagues committed to West Point's principal mission—teaching cadets and developing them as leaders of character. The USMA Center for Teaching Excellence's purpose is to assist you in meeting that mission.

The education of our cadets would be limited without the education of their instructors. Just as military officers grow and develop through field experiences, college teachers should grow and develop through classroom experiences. Those of you who are military officers know that you are not the same individuals you were when you were commissioned—or even when you completed OBC.

Interestingly, the competencies and skills you will develop through teaching at USMA are precisely those you will need to be an effective field-grade officer—to know your learners, design and implement instructional programs for those learners, and assess the effectiveness of those programs. Teaching at USMA is not a “break” in your Army career, but another developmental opportunity. Those of you who are civilians and plan a career in teaching may already know that professors must grow and develop to be effective leaders of students.

To assist you in your development as instructors, the CTE's website is designed to provide support for you in various ways, and we encourage you to browse on our site to see what it has to offer. The CTE also offers a sequenced, four-semester program leading to “Master Teacher” certification. Information about this program is available in a separate flyer that will be provided during your summer orientation to USMA either at your CTE briefing or from your department. In addition, we offer several ‘one time’ events, such as our monthly “Brown Bag” series, and you'll receive information about all these things via our monthly newsletter and e-mail reminders.

Please keep in mind that we at the CTE are always available for confidential consultations about any issues related to teaching and learning♦

15 Things to do During the First Two Weeks of Class



Research indicates that the first two weeks of a class are crucial for shaping students' attitudes toward learning in a course. Students usually believe that what is done during the first two weeks of a class will be characteristic of that class throughout the semester. For example, instructors who do not collect (or refer to) homework during the first two weeks risk signaling to students that homework is not important to learning in the course. Here are fifteen things for you to select from to help shape your class to . . .

- **Engage Cadets**
(get their attention & stimulate motivation)

- **Encourage Active Learning**
(involve cadets in the learning process)

1. Bring in items from newspapers and newsmagazines that illustrate the importance of your subject to “real world” concerns.
2. Illustrate the relevance of your course to cadets' development—i.e., the college experience is considered one of the critical developmental processes for young people. What aspects of the Academy's academic program goals does your course address? Illustrate the importance of this knowledge to a future Army officer—or any educated adult

Also in this special issue:

Page 2	Interim Feedback
Page 3	What I Learned During My First Semester Teaching at USMA
Page 4	13 Principles of Teaching & Learning

15 Things To Do *(Continued from page 1)*

3. Address cadet “myths” about the course that they will find untrue in this class. For example, if you know that the word among cadets is that your course is very difficult, you may be able to point out that most of the difficulty students experience is self-inflicted—i. e., perhaps the department has ascertained that cadets who don’t do well tend to be those who fail to do the assigned class preparation or homework.

4. Share your instructional goals with the cadets and have them formulate their own learning goals for the course. Then challenge them to identify ways to achieve their goals.

5. Create an engaging problem (or problems) based on material assigned and have the cadets work together in small groups to solve the problem(s) and report solutions.

6. Assign “questions” for homework. Every cadet must come to class with a question raised by the homework assignment. (In class, you can have the cadets work briefly in groups to see if any group can answer all of its members’ questions. Then you can have the groups pose their unanswered questions to the other groups. The questions that remain at the end of this process can be a “challenge round” for the class to address in another session.

7. Create an assignment that requires cadets to create a visual model of specific course material. Often called “mind mapping,” this is a technique that is most useful for visual learners and most helpful in concretizing abstract concepts for learners.

8. Begin class by having cadets (working in teams) develop a “quiz” on the important concepts in the day’s lesson. Then have teams challenge each other with the questions they develop, with each team reporting their “answers” to the entire class.

9. Assign cadets (individually) to be responsible for the day’s “agenda.” That is, cadets will, in turn, list the major points for the day’s class based on their assessment of the significant issues in the assigned homework.

10. Have cadets (in teams) create a “WPR” question based on the first week’s course material. The class then evaluates and chooses the “best” question, and teams work on developing a “best” response to that question.

11. If cadets typically are asked to solve numerical problems for homework, identify ONE problem from the homework set and assign cadets to “solve” it in sentences in a well-organized paragraph.

12. Assign cadets one of the “Learning Assessment” measure from the CTE Web page [under ‘Cadet Feedback’] to do on completion of their class preparation and use their responses as the basis for the next class meeting.

13. Create 4 or 5 challenging “higher order” questions (i.e., involving analysis, application, or synthesis) on the day’s lesson. Divide the class into groups, assigning each group a question to discuss and report on in 10 minutes. Cadet reports focus discussion for the remainder of the class session.

14. Have cadets provide written explanations of key concepts for a specific audience— e.g., a definition and example of “velocity” for their grandmother; an example of “derivative” for their 14-year-old brother. Have cadets share and critique these explanations for accuracy.

15. Give cadets two written opinions related to the course content that present opposing views, and have cadets discuss the relative merits of each opinion and identify the one they believe has the stronger evidence.

After the first two weeks, continue to use the activities that work best for your and your cadets for the rest of the semester!

Interim Feedback Do it for YOU!

The nationally known educator Steven Brookfield has written:

The most important knowledge teachers need to do good work is a knowledge of how students are experiencing learning and perceiving their teacher's actions.

While we have a very robust End-of-Course Feedback system at USMA, the best thing an instructor can do for personal development is elicit interim feedback from students during the course. Since we are asked to report grades at six and ten week intervals of the semester, that’s also a good time to elicit feedback from cadets.

The CTE offers a web-based system for Interim Feedback (check our website under “Cadet Feedback”) which provides a list of questions that instructors can select from. Check out our system. Even if you don’t use it, you’ll find the explanation of the process useful for whatever system you prefer for eliciting feedback from your students.

Don’t hesitate to check with the CTE if you have any questions about our system or about the process of interim feedback. It’s the best thing you can do for yourself this semester!

What I Learned During My First Semester Teaching at USMA

Here are some reflections from colleagues that illustrate one of the major problems for ALL new instructors—understanding the learner as different from oneself. See how these officers explain their experience. . . .

One of the assumptions that I had before the start of my first semester of teaching IT105 was that plebes in their first semester of college would approach studying the same way as I did in graduate school. Nothing could have been farther from the truth.

Having just earned my masters degree in computer science in May 2004, I arrived at West Point after 6 grueling semesters of graduate studies. Contrast the level of learner that I was at after 6 years of college study and 8 years of Army experience to plebes who were fresh out of high school and starting their first semester of college courses. The difference is that most of the plebes I taught had just come from high schools where they had probably experienced academic success without much effort.

Not all plebes fall into this category. As always, there are some who are truly gifted learners who quickly master new concepts and information with minimal effort. I believe that there are others who are already efficient studiers and can likewise master new concepts and information after adequate study. I just need to stop assuming that the level of learning taking place in my classroom is the same as I recently experienced in graduate school and modify my teaching style, as appropriate.

—CPT Brad Cook, D/EE&CS

Upon reporting to the Department of Mathematics here at USMA, many “gray bearded” instructors here in the department discussed their reflections on teaching based on years of experience. One of the key points that they discussed (and I didn’t truly grasp until late into my first semester of teaching) was the idea that learning is a very inefficient process. My initial beliefs were that if I, as an instructor, discussed a concept in the classroom and there were no immediate questions, then the students *knew* the concept.

In reality though, I believe that even though information is presented, the process of true learning involves a significant amount of time to revisit concepts in many different situations to really hit home with the inexperienced learner. As the semester wore on, I found that my perception the student’s level of understanding the material was very different than their true level of understanding.

Many times I would enter the classroom and ask the class if there were any questions – hearing no questions, I incorrectly assumed that they had a firm grasp of the concepts and would move on to the next topic. Since, in reality, the students had a very tenuous grasp of the concepts, any extension of those concepts was a near impossible task.

Teaching in a course that continually builds on previous concepts, this methodology of presenting material and moving on was not going to provide true knowledge transfer to the student. It instead was going to provide, at best, a student who could perform a few basic computations that

would have to fit into a template that they had previously completed. It was not until several enlightening AI sessions with cadets that I realized that as an instructor, I must step back and understand that the students will probably know less than I believe that they know.

This simple adjustment in my thought process as an instructor allowed me to think about class sessions in a completely different light. Instead of working a few problems that demonstrated a particular concept, I began to work and develop problems that built on previous concepts while focusing on similarities and differences to previous concepts. What I found was that by posing questions such as, “How is this similar to what we did last week?”, the students saw a tie between “new” concepts and problems that they had already worked. By simply adjusting the way I asked questions, students seemed to link and internalize concepts much more effectively. CPT Joe Lindquist, D/Math

As a new instructor here at the Academy, I initially made the critical mistake of believing that all my students would be as motivated to learn American History as I was to teach it. As such, I gave little thought to the “problem” of motivating a class to learn. Unfortunately, I rapidly discovered that perhaps American History, in and of itself, would not inspire, challenge, and stimulate my classes in quite the manner I had hoped. Therefore, I realized that I needed to find some other ways to reach my students. As a result of this process, the major lesson I learned in this first semester of teaching is the importance of helping students find personal meaning in the material.

A series of classes on the development of the Constitution helped reinforce the first technique of helping students find personal meaning in the material. I sensed frustration and boredom from my cadets as we examined the creation of the Constitution, using the Articles of Confederation as a starting point, progressing through the Northwest Ordinance of 1787 and so on. In an attempt to re-energize the class, I put up a slide with a picture of the traditional graduation “hat toss” and the commissioning oath superimposed on top of it. I then asked the cadets what this meant and how it pertained to our discussions over our last few sessions. Once they understood that the Constitution was not just a piece of paper, but a living document they will one day be sworn to defend, and perhaps die for, I immediately sensed a positive change in the attitude of my students.

Although this technique is not always easy to apply, especially in the field of history, I truly believe it is perhaps the best method available to increase a students’ motivation to learn. I continued to attempt to apply this principle throughout the rest of the semester and will continue to do so in my time as an instructor here at the Academy. The need for motivation and techniques for energizing students became my most important teaching lessons from this past semester.

—MAJ Joel Miller, D/History

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 we invite you to reflect on how they apply to your teaching situation♦

“The mind is not a vessel to be filled but a fire to be kindled.” (Plutarch)

Note— As this quotation illustrates, there’s nothing ‘new’ in teaching, but we often lose sight of these basic truths.