

Paramedic Class Advisory Committee Report

November 14, 2013

Challenges in paramedic education and program changes this fall:

What to teach: We have continued the updating of all student and program documents to the National EMS Education Standards based on our local needs assessments and framing objectives for all three domains of learning.

- The first week of class was totally reformatted. Students were given a more thorough orientation. The student policy manual and all learning contracts and consent forms were totally revised so that expectations were clearly stated and students signed that they had read, understood and agreed to align their performance with those expectations. This has proven a very effective strategy and we have not had one performance issue in class so far.
- Based on knowledge gaps identified in the paramedic class pre-entrance exam, Chris Dunn (EMT-B Lead Instructor and Paramedic class lab coordinator) prepared a Brilliant on the Basics Team Challenge for the second day of class. Students were quizzed in a lightning round format on concepts that should have been learned in their EMT-B education so that all students understood foundational expectations of their preparation to the present and the level at which the paramedic class is going to be taught. This process highlighted the need for concentrated study and for the first time in history, each squad arrives for class early to jointly review their homework questions.
- Based on feedback from our communities of interest that they wanted an increased emphasis on the affective objectives and professionalism, coupled with the fact that graduates must demonstrate competencies in leadership, interprofessional collaboration and teamwork, cultural sensitivity, and professionalism, we had exemplars from the System present the classes on EMS safety and Well Being of the Paramedic (Chief Dyer) and Roles and Responsibilities/ Professionalism (Drew Smith).
- Based on feedback from the hospital clinical units, Jen Dyer (clinical coordinator), spent half a day orienting them to the clinical instruction plans, student objectives and expectations, and how to schedule and document their clinical experiences in Fisdap.
- Based on performance gaps in the last class, Kyle Marcussen spent half a day ensuring that all students could understand and do medical math needed for accurate drug dosing. This was highly successful for all but one student when their learning was measured on the first quiz. That student was assigned guided study with Kyle and will be re-measured for math competency.
- Based on requirements from the Committee on Accreditation of EMS Programs for active EMS Medical Director involvement; Dr. Ortinau was scheduled to teach on the third day of class. He brought a wealth of personal experience from years of serving as an expert witness to the Medical Legal presentation.
- Given that our graduates are expected to practice across the life-span, we moved pediatric lifespan development to EMS 210 from EMS 212 so students are introduced to this content and able to begin clinical rotations in the pediatric emergency departments two months earlier in the program. A variety of children from infants to school age were brought into a lab on Nov. 11th for direct contact with children prior to beginning the hospital clinical rotations.
- We will also place a greater emphasis on older adults and end of life care.

How to teach

- We were asked by the EMS agencies to conduct the class in an academy style, so all students are required to attend class and all class functions in uniform. This has also received multiple notes from observers at the hospital who have noticed a remarkable improvement in student behavior this year.

- Whenever possible, we have incorporated methodologies and strategies that reduce reliance on instructor-centered passive learning methods such as lecture and have incorporated active, student-centered learning activities. There have been multiple simulations and scenarios included in the presentations. For example, on the first day of class, 15 minutes into the introduction, they got toned to the parking lot across the street to a simulated cardiac arrest. Members of the Palatine Fire Department responded and demonstrated an excellent example of the pit crew approach to cardiac arrest management. They even procured a high fidelity manikin from Harper College to add to the realism. When we returned to the classroom, I simply told the students that they would be expected and able to do this in two months. That set a great tone for learning.
- The squads have also been assigned the responsibility of teaching the drugs. When each new drug is introduced, the team must come to the front of the classroom and present the profile of their assigned drug in a way that is thorough, innovative, yet meaningful for their team members. I facilitate any additional information needed.
- Multiple labs have been conducted on all the psychomotor skills that are required in EMS 210 as a prerequisite to beginning their hospital clinical rotations. New equipment (manikins) have been purchased to provide better practice opportunities for airway and vascular access skills.

Who should teach

- We are committed to using competent and qualified educators who have the skill sets to effectively facilitate and measure learning.
- All members of the Resource Hospital EMS team serve as facilitators in the classroom or as members of the lab team. Chris Dunn is creating a selective pool of motivated and qualified lab preceptors to mitigate the variation in practices that we've seen taught in past years.

How to measure

- We are attempting to build links between knowledge, clinical reasoning, and practice. The Education Standards emphasize the need for competent performance and we use validated assessment tools to verify that competence for each domain (cognitive, psychomotor, and affective) in a variety of settings, and showing the progression of improved performance over time. Students will be expected to build portfolios and we will use multi-directional formative and summative evaluations.
- Based on feedback from our communities of interest, the passing grades for quizzes and exams has been raised to 80% to encourage daily study and mastery of the objectives and class concepts.
- Student learning is frequently checked for understanding during classroom presentations through "white board" questions; weekly quizzes, and modular exams. Each measure achievement of objectives. Quizzes have been constructed with a blend of multiple choice and short answer questions. Scores have been generally very good.
- Labs measure skill acquisition and practitioner competency using detailed skill sheets listing all critical steps. Given that "technician" has been removed from a paramedic's professional title, they will not be defined so much by what they do as how they are able to use clinical judgment and critical reasoning to assess, problem solve, and react using evidence-based practice guidelines in complex situations. Thus, they must be able to use higher order thinking skills to determine a patient's problem and intervene appropriately within their scope of practice reducing reliance on a "cook-book" mentality that ignores patient or situational variations. To achieve that end, in the next semester, labs will begin to transition from discrete skill practice to integrated scenario-based stations.
- We are also preparing the students to recall and effectively apply cognitive concepts and psychomotor skills in real time in both education and practice. Referred to as knowledge management, this requires a paramedic to rapidly access knowledge as it is needed using new tools and strategies. Digital natives find this transition effortless and easy. Older learners sometimes find it difficult and daunting to be asked to search an answer from the internet on the spot and respond to a posed question.
- We are also encouraging authentic literacy by asking students to complete several scholarly writing projects. The first one on "Why Oxygen Delivery Can Be Harmful" was due this week.