2002 National Guidelines For Educating EMS Instructors

National Association of EMS Educators
U.S. Department of Transportation
U.S. Department of Health and Human Services

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Module 1: Introduction

Dear Colleagues:

In January 2001, The National Association of EMS Educators (NAEMSE) entered into a cooperative agreement with the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA).

The goal of this partnership was to design an instructor preparation curriculum for guiding EMS educators to effectively teach adult learners who populate the EMS classroom.

Drafted by representatives of the National Association of EMS Educators along with representatives from professional organizations, regulatory groups, accreditation agencies and state education agencies, this curriculum represents a common core of teaching knowledge and skills which will help all EMS educators to assist the adult learner acquire 21st century knowledge and skills.

- *Organizations participating with NAEMSE in the task force included:*
- *The National Association of EMTs*
- *The National Association of State EMS Directors*
- *The National Council of State EMS Training Coordinators*
- *The International Association of Fire Chiefs*
- *The International Association of Firefighters*
- *The Committee on Accreditation of EMS Programs*
- *The National Registry of EMTs*
- *The National Association of EMS Physicians*
- *Emergency Medical Services for Children's National Resource Center*

The efforts of the task force constitute the initial step towards a coherent approach to the preparation and certification of the professional educator in the EMS setting. The curriculum is based upon the shared view within the EMS education community of what constitutes professional teaching.

The task force acknowledges the variety of settings that EMS education takes place, ranging from the instruction of citizens (CPR, first aid, etc.) to graduate programs in EMS management. The task force also acknowledges the wide variance in the educational preparation of persons who chose to teach in the EMS setting. This document addresses the knowledge, standards, and performance expectations deemed essential for all professional educators, regardless of topic area or level of instruction. This document will assist with the implementation of the vision prescribed in the EMS Education Agenda for the Future: A Systems Approach (2000). The Education Agenda will create an EMS education system that "emphasizes high-level cognition, problem solving, and the ability to deal with ambiguity and conflicting priorities"

One intended outcome of this curriculum is to stimulate dialogue among the stakeholders of the EMS education profession regarding the best thinking of their colleagues as to what constitutes competent entry-level EMS instruction. Our work is offered to state and local EMS agencies and educational institutions concerned with the professional development of EMS educators. The curriculum may serve as a resource to revisit State standards for training and licensing of new EMS educators; as a step towards national certification; and, as a part of the process for national accreditation of EMS education programs. It is only with consensus among EMS educators that a shared vision of future EMS education will be forged.

We encourage all EMS educators to consider ways that this curriculum might enhance their EMS teaching skills and improve the outcomes of the EMS student in the education system. Our ultimate shared goal is to provide the highest level of quality patient care.

Sincerely,

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The *EMS Education Agenda for the Future* clearly articulates a vision for an educational system where national program accreditation and national EMS certification are explicitly tied to one another. The current EMS education system in the United States has such wide variability in its approach to the education and certification of its EMS providers that there is no clear, consistent description of the "typical" EMS provider, regardless of level. A result of this situation is the inability of a well-qualified and educated EMS provider to readily move from one part of the country to another without exerting significant efforts to re-establish the ability to function as an EMS provider. Efforts to achieve national consensus on educational issues such as national standard curricula have also been limited by these inconsistencies.

Critics of national certification and program accreditation argue that EMS practice should be determined at the regional or local level. National certification and program accreditation does not restrict the ability of an EMS system or authority to define what may or may not be included in the scope of practice for emergency medical technicians. Rather, these concepts support an educational system that better prepares the EMS student to function within the local environment. There may be additional benefits that will be realized as cross-region barriers are reduced, such as a larger potential employee pool for EMS employers to draw from.

Efforts to restructure EMS education, as it is envisioned in the *EMS Education Agenda for the Future*, are redefining the mission of EMS education programs and the scope of work for EMS Educators. Rather than merely delivering a prescribed curriculum, EMS educators will be expected to ensure that all adult learners learn and perform at high levels of competency. EMS educators will be expected to find ways to support and connect with the needs of all the adult learners in their classrooms. This new mission requires substantially more knowledge and skill on the part of EMS educators and the implementation of a more student-centered approach to providing EMS education. These changes occurring in the delivery and content of EMS education and in EMS program structure require supportive policies for preparing educators and for accrediting EMS education programs.

A major initiative to strengthen the EMS education profession was the establishment in 1995 of the National Association of EMS Educators (NAEMSE). The mission of NAEMSE is, *"to promote EMS education, develop and deliver educational resources, and advocate research and life long learning for the professional EMS educator".* NAEMSE is dedicated to assisting in the development, preparation, and induction into the EMS education profession of those persons interested in teaching in the EMS setting. The National Association of EMS Educators believes that the complex art of teaching requires the development of performance-based standards and assessment strategies that are capable of capturing EMS educators' reasoned judgments and that evaluate what they can actually do in authentic teaching situations.
The National Association of EMS Educators (NAEMSE) entered into a cooperative agreement with NHTSA and HRSA in January 2001, to revise the *EMS Instructor Training Program* (1995). A task force was convened to consider what changes were needed in the document to create standards for entry into the EMS educator profession. These are standards that embody the kinds of knowledge, skills, and performances that entry-level EMS educators need to practice responsibly when they enter the field of EMS teaching. The standards are also designed to be built upon and prepare entry-level EMS educators for eventual success as master level EMS educators later in their careers.

The goal of the task force was to create a curriculum based on sound educational standards designed to prepare entry-level instructors as well as enhance the teaching skills of experienced instructors. Professional organizations, State agencies, and other stakeholders in the project reviewed the standards and the content of the curriculum.

The Starting Point: A Common Core of Teaching Knowledge
The foundation of any educational system is the preparation and experience of its teachers. The EMS educational system is no different. However, the current approach still relies heavily upon the concept of a "good clinician" is a "good teacher." This may have served the EMS education system satisfactorily when it was in its infancy, however, as the EMS profession continues to develop and mature, so must its educators. As the EMS profession does not believe that providers of emergency medical care should learn their craft by trial and error; it should not expect that from its teachers. EMS educators should be educated in the practice of teaching, and should be able to demonstrate their competency in doing so. The development of national standards for the credentialing of EMS educators will be

a critical step toward the development of consistent, effective educational practices and successful student outcomes.

The task force began its work by articulating standards for a common body of teaching knowledge and skills that should be acquired by all entry-level instructors. These initial standards will be followed by additional distinct standards for specific areas and levels of EMS education. Like the first tier of assessment for licensing or certification in virtually all other professions, this body of knowledge is intended to outline the common principles and foundations of practice that cut across specialty areas in EMS education. It includes the knowledge of adult learning and motivation theories, curriculum design and teaching methods that all fields of education share.

The initial development of this shared body of knowledge was viewed by the task force as important for two reasons.
First, it is the common commitment to ethical practice and foundational knowledge that provides the philosophy that holds members of the profession together. A common language and shared body of knowledge enables educators to better communicate with each other. Second, the development of the common body of knowledge becomes the essential foundation for designing assessment methods for the evaluation of instructional skills. The educational community recognizes that application of this common body of EMS education knowledge will occur in specific contexts. The adult learner, level of instruction, and instructional setting will define these contexts. We emphasize the dynamic nature of this set of professional understandings, abilities, and commitment standards.

The Curriculum: Outcome-Based and Assessment Compatible
An important attribute of this curriculum is that it is outcome-based. The curriculum describes what EMS educators should know and should be able to do in an educational setting rather than prescribing what specific course of action should be taken. This shift toward outcome-based standard setting is in line with the *EMS Education Agenda for the Future*. This curriculum will clarify the criteria required for successful completion of the instructor-training course. The flexibility of this document comes into play as the end user (jurisdiction, state, training program, etc.) determines to what level (depth and breadth) assessment will take place. The task force placed emphasis on the abilities EMS educators should develop rather than the hours they spend taking classes. Ultimately, performance-based certification standards should enable states and other interested parties to permit greater innovation and diversity in how EMS educator programs are designed and delivered by assessing their outcomes rather than their inputs or procedures.

The curriculum was developed from six major consensus points reached by the task force during the initial development of the curriculum. The task force agreed that the EMS educator (whether entry level or experienced) has the following professional attributes and skills:

- EMS educators are committed to the needs of the adult learner and their learning preferences.
- EMS educators know the subjects they teach and how to teach those subjects using different methods to a diversity of adult learners.
- EMS educators are responsible for managing the learning environment and assessing learning outcomes.
- EMS educators think systematically about their practice and learn from their classroom experience.
- EMS educators are members of the larger EMS and educational communities and are committed to continual improvement in the EMS education system

EMS educators are aware of the content and implications of the *EMS Education Agenda for the Future.*
In our work, the task force used historical documents from the Federal government, numerous seminal adult education texts, excerpts from previous National Standard Curricula, and survey information gathered from the States and members of professional organizations as the basis for exploring what entry-level EMS educators should know and be able to do. We drew on the work of a number of States who have developed certification standards for EMS educators, the valued input of instructional designers, and early versions of professional development courses (Bourn, Dalton and Smith, 1994)

The **Professional Attributes and Skills Set Criteria** (Module 2) was the reference point in the development process and it permeates throughout the curriculum. The curriculum is not organized within each of the criteria since so many abilities are interdependent. An instructional matrix (figure 1.1) is provided to assist those implementing the curriculum with the selection of topics for inclusion in their individual program. The matrix is based on performance outcomes, matching the education objective level (breadth) to the performance expectations (depth) of what the educator is expected to do in a particular classroom setting.

Entry Level EMS Educators vs. Master EMS Educators

The task force spent a great deal of time considering the question, "How do we distinguish between beginning and advanced levels of performance by the EMS educator?" The requirements for entry into the EMS education profession have become more sophisticated. Many States require probationary periods prior to issuing a certification to teach and an increasing number require an internship as part of their preparation. Questions arise about what the EMS educator should be expected to know and be able to do at various points in their professional development. The task force debated the question of what level of preparation and depth of knowledge would be needed to enable EMS educators to succeed at the entry-level. The task force accepted the fact that variation will continue to exist nationally, but successful completion of the instructor course should prepare participants to practice responsibly as an entry-level EMS instructor.

The adult learners' need for well grounded and adaptive teaching techniques are what must ultimately define the standards for EMS educators. The entry-level EMS educator must have the ability to engage in learner-centered, outcome-based practices articulated by the curriculum. Successful completion of the curriculum should provide the opportunity for building and developing teaching skills on a solid foundation that will lead to higher levels of instructional and administrative expertise.

While revising the course, the task force discussed whether or not the level of knowledge, understanding, commitment, and ability differed between entry-level educators and more expert educators. The group concluded that the appropriate distinctions between beginning and advanced practice are in the degree of sophistication the EMS educator exhibits in the application of knowledge rather than in the kind of knowledge needed to perform effectively in the classroom setting.

Advanced level EMS educators, having greater flexibility and adaptability, are expected to develop their abilities to deal simultaneously with more complex facets of the teaching environment. They should have greater capacity to integrate understanding and performance based upon the adult learners' individual needs. To that end, to eventually become an expert practitioner the entry-level instructor must have, at the very least, an awareness of the kinds of knowledge and understandings needed -- as well as resources available -- to develop their skills. In addition, entry-level instructors must have the capacity to address the facets of the curriculum, classroom presentation, and adult learning styles. The curriculum not only aims to develop entry-level instructors, but it also is designed to improve the performance of expert educators.

Peer Review

The curriculum was distributed in draft form to members of the task force for review on July 15, 2001. The task force members were asked to review the curriculum based upon the accuracy of theoretical content, presentation quality, and appropriateness of content for entry-level instructors. We asked the task force to identify the curriculum's strengths and weaknesses and suggest strategies for revising it.

After incorporating task force comments, we posted the draft curriculum on the NAEMSE web site on July 30, 2001, for further national peer review. In addition, we e-mailed NAEMSE members and published requests to review the draft in the organization's bimonthly newsletter. The EMS community and other interested parties were asked to evaluate the quality of the information provided, to examine the curriculum for strengths and weaknesses, and to critique the design and content of the curriculum.

In September 2001, two modules of the draft curriculum were presented to members attending the NAEMSE annual educational symposium. Attendees were invited to comment on the modules and encouraged to visit the web site to review and comment on the entire draft curriculum. In November 2001, all additional modifications and revisions were incorporated into the draft prior to the pilot test.

The Pilot Program

The pilot program was successfully conducted on April 6-9, 2002, in Portland, Oregon. More than one hundred and thirty persons attended the four-day program. Twenty-one task force members and faculty presented a compressed version of the curriculum. The participants evaluated the content, design, and evaluation methods used during the program. The design of the pilot was based on the constructivist model of education as students were active participants in the learning process.

Quality assurance activities included focus groups, daily evaluations, and final program evaluations. All quality assurance activities were developed, conducted and supervised by professional EMS educators who were not involved in the design and development of the curriculum. The task force reviewed and incorporated many of the suggestions from the pilot participants into the final curriculum.

Recommendations for Prerequisites

The curriculum emphasizes an academic specialization, specifically, adult learning theory and teaching skills. Prerequisites for attending the program will vary according to the particular program, the local and state requirements and the area of specialization the participant is interested in pursuing.

Ideally, the entry-level EMS educator should have successfully completed a course of academic study and gained clinical experience as an EMS provider, registered nurse, physician, or other allied health practitioner prior to entering the educator program. The entry-level instructor should also be educated to a level that is at least one level higher than the level of provider they intend to instruct. For example, an experienced EMT-Intermediate could become an appropriate entry-level instructor for an EMT-Basic course. Professional knowledge is the foundation of teaching practice.

The intent of the curriculum designers is to assist in the preparation of educators who are proven EMS practitioners and enthusiastic role models for lifelong learning and professional standards. Participants who attend the entry-level EMS educator program should be teacher candidates who have proven their commitment to the profession through self-initiated field experiences and academic performance. Previous teaching experience is preferred.

Another recommendation is that the entry-level EMS educator participates in a supervised teaching internship in an EMS program, working and learning under the shared guidance and expertise of experienced educators. During this internship it is recommended that the participant document their learning and professional growth through the development of a portfolio that should be reviewed by the experienced program educators.

It is envisioned that the entry-level EMS educator programs, offered at the State and local levels, will evolve in the future and be part of a national instructor credentialing process and the envisioned national accreditation process. A national instructor credentialing process will help pave the way for reciprocal credentialing in other states.

Course Description

The instructor course curriculum is designed to facilitate the use of **Professional Attributes and Skills Set Criteria** as outlined in Module 2.

A needs assessment of the intended student population should be conducted prior to the delivery of the course. Performance outcomes expected of the participants following completion of the course should be clearly identified and articulated in writing. The question to ask is, "What should the participants be able to do as a result of taking this course?" The answer to this question can come from many sources, including discussions with course participants, faculty, employers, advisory groups, certifying bodies, and EMS community representatives.

The first step in presenting this curriculum is to identify the intended learning outcomes for the program. Intended learning outcomes answer the following questions:

1. What will participants know or understand once they have successfully completed this course?
2. What will they be able to do with their knowledge or understanding when they have successfully completed the course?

Once the outcomes are in place, discussions should take place about how the intended learning outcomes will be assessed at the completion of the course or program. In outcome-based educational processes, assessment is not an academic exercise unlike anything the student will encounter elsewhere in life. Evaluation methods must parallel what the participant will be expected to as an EMS educator. Additional questions to be addressed are:

1. What assessment tasks will the participants have to complete (and to what degree) to assure that the outcomes have been met?
2. In what ways do these assessment tasks reflect the context in which the participants will be expected to use the knowledge, skills and attitudes learned in this course?

When the assessment process has been delineated, determine the necessary content and appropriate learning processes. Questions to address are:

1. What facts and information do the participants need to have in order to meet the outcomes?
2. What skills and abilities are essential to the outcomes?
3. What themes, issues or concepts do participants need to explore and understand?
4. What experiences will best help the participants to gain the knowledge, skills, abilities and values needed to meet the outcomes?

As an outcome based education program, the course must include instructional methods that emulate the modeling, coaching and facilitating concepts integral to the cognitive knowledge base of the EMS instructor. The course should include group activities that encourage participants to link their experiences to conceptual knowledge and learning activities that challenge the participants to use their problem-solving skills and demonstrate their theoretical knowledge. Emphasis should be placed on instruction and teaching processes rather than the administrative and managerial functions of EMS instruction.

Some areas may be best covered in non-traditional methods, such as pre-requisite directed readings. This approach would prove particularly appropriate for those modules that are largely aimed at presenting an introduction to the topic. There is no intent for the modules of this curriculum to be presented in a formalized lecture format. Presenters of this curriculum must be prepared to move back and forth between outcomes, assessment, content and learning processes; to continually learn from the participants; and to constantly question how to better prepare participants for their work in the field of EMS education.

Acknowledging the diversity of EMS educational settings and the individual needs of local, State, and regional governments, the task force developed a matrix (curriculum map) for the implementation of a modular approach to the contents of the curriculum. The matrix outlines the recommendations of the task force for the level of performance the participant should master. This level of mastery is based upon the entry-level instructor's responsibility in the program setting. Built around the levels of learning that are described in Modules 8 and 16, the matrix further defines process, skills, and content topics.

Module	Secondary Instructor	Primary Instructor
Definition of roles	Assists primary instructor to instruct and evaluate any domain of learning in the classroom and laboratory. Uses prepared materials without significant modification.	Instructs and evaluates in any domain of learning in the classroom and laboratory. Uses and modifies prepared materials.
1. Introduction		
2. Roles and Responsibilities	Concept Overview	Basic Knowledge
3. Administrative Issues	Concept Overview	Basic Knowledge
4. Legal Issues	Concept Overview	Basic Knowledge
5. Ethics	Application	Application
6. Learning Environment	Application	Application
7. Learning Styles	Basic Knowledge	Application
8. Domains of Learning	Application	Application
9. Goals and Objectives	Basic Knowledge	Can Modify
10. Lesson Plans	Basic Knowledge	Can Modify
11. Presentations Skills	Application	Application
12. Evaluation Techniques	Basic Knowledge	Can Modify
13. Facilitation Techniques	Application	Application
14. Communication/Feedback	Application	Application
15. Motivation	Basic Knowledge	Application
16. Teaching Thinking Skills	Application	Application
17. Teaching Psychomotor Skills	Application	Application
18. Affective Domain	Application	Application
19. Discipline	Application	Application
20. Remediation	Application	Application
21. Cultural Awareness	Application	Application
22. Teaching Resources	Concept Overview	Application
23. Research	Concept Overview	Basic Knowledge
Situational Evaluation Tools:	Present Lesson	Modify Lesson plan

Concept Overview	Brief overview of concepts given, little to no evaluation over these materials
Basic Knowledge	Introduction to the topic, cognitive evaluation at low levels (C1)
Application	Cover the topic in more depth, probably includes practical exercises, cognitive evaluation at mid to high levels (C2-C3)
Can Modify	Given draft materials, the candidate can modify materials to make more useful (e.g. objectives, lesson plans, evaluation tools)

Figure 1.1

Conclusion

The task force was charged with articulating standards for entry into the EMS educator profession and to develop a curriculum that would assist persons in meeting those standards. The first section of this module presented the philosophical consensus points reached by the task force regarding the professional attributes and skills of the entry-level EMS educator. The professional attributes were expanded to describe a common body of teaching knowledge and skills that should be acquired by all entry-level instructors.

The task force realizes the positive impact that the *EMS Education Agenda for the Future* will have on the EMS education environment. This environment is characterized by increasing knowledge, complexity, and uncertainty. The task force proposes that the knowledge of adult learning, curriculum design, and teaching methods described in the curriculum are requisite for EMS educators, regardless of their level of instruction, their years of experience, or the specific content area they specialize in.

In the second part of this first section, the task force acknowledges the diversity of the environments in which the curriculum will be used and the diversity of the persons who will participate in the course. Suggestions are included for designing program offerings at two levels of instructor responsibility: primary and secondary. A description of professional attributes and skills sets, with suggestions for outcomes and assessment, is included.
The effort of the task force constitutes the initial step towards a coherent approach to the preparation and certification of the professional educator in the EMS setting. This curriculum is based upon the EMS education community's shared opinion of what constitutes professional teaching. The curriculum serves as the framework for preparing EMS entry-level educators to work comfortably in a classroom environment.
The task force believes that to be effective, the entry-level EMS educator must be able to integrate content knowledge with pedagogical understanding to assure that all adult learners learn and perform at high levels in their chosen field.

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Module 2: Roles and Responsibilities

Cognitive Goals

At the completion of this module, the student-instructor should be able to:

1. Use their own words to provide a descriptive definition of the Primary and Secondary EMS Instructor
2. Describe the differences between the Primary and Secondary Instructor
3. Describe the duties of a Primary Instructor providing the majority of instruction during the entirety of an EMS course
4. Describe the duties of a Secondary Instructor assisting a Primary Instructor
5. Describe the importance of professional development through continuing education, conference offerings and formal academic coursework for the EMS instructor
6. Describe sources for locating relevant educational and research materials
7. Describe the relationship between the instructor and the student, assistant instructor, program director and medical director
8. Describe the role of the course syllabus and lesson plan in course management
9. Describe the major components of the syllabus and lesson plan

Psychomotor Goals

There are no psychomotor objectives for this section

Affective Goals

At the completion of this module, the student-instructor should be able to:

1. Defend the importance of continuing professional development for the professional educator
2. Value the role of the instructor in the EMS classroom
3. Serve as a role model for other educators in the EMS setting
4. Assess personal attitudes and demeanor that may distract from professionalism
5. Value the variety of the classroom culture
6. Appreciate the importance of the teacher-student relationship
7. Value the need to provide fair, timely and constructive feedback to students
8. Exhibit professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork, diplomacy, and respect
9. Explain the value of serving as a mentor
10. Value the importance of mentoring in the development of a professional EMS instructor

Declarative

I. Why this module is important
   - A. EMS instructors do more than teach students in the classroom setting so it is important to have an understanding of the scope of duties and responsibilities
   - B. EMS instructors should value the team approach to teaching and know those individuals included on the instructional team
   - C. EMS instructors should know the desirable character traits of an educator and the commonalties that exist between the characteristics of an EMS provider and an EMS educator
   - D. EMS instructors should understand the value of mentoring in the professional development of an instructor

II. Module terms
   - A. The following terms are used in this module
   - B. See the appendix for a complete listing of terminology for this curriculum
   - C. Primary instructor:
     1. An individual who possesses the appropriate academic and/or allied health credentials, an understanding in education principles and theories, and the required teaching experience to provide quality instruction to a cohort of EMS students

D. Secondary instructor:
   1. An individual who possesses the appropriate academic and/or allied health credentials and an understanding in education principles and theories that may have limited teaching experience. This individual is responsible for providing instruction to students and in assisting a primary instructor.

E. Cohort:
   1. A defined group of students who are attending a class together

F. Class:
   1. Two definitions are used for class and the context will determine the definition
   2. Class: A single block of instruction provided at a single point in time, like when a class meets for 3 hours and the topic is the ABCs of CPR
   3. Class: Refers to a cohort of students who are attending an ongoing program of study (with multiple meeting sessions) that will lead to certification or licensure, like EMT-basic training

G. Program:
   1. Two definitions are used for program and the context will determine the definition
   2. Program: Another term for a class of students attending training with multiple blocks of instruction, like first responder training
   3. Program: Term for an organized body that designs, develops and/or delivers a variety of EMS education products including primary instruction, refresher and continuing education. This body may be found within a training academy, hospital, industrial setting, business or academic setting. In this use of the term, programs organize and administrate classes and events.

H. Event: Refers to a single educational product like a daylong workshop or a refresher course. Event generally does not refer to education products that continue to have classroom sessions for an extended period of time like an EMT-Intermediate or Paramedic course

III. Overview of EMS education practice

A. The primary source for information concerning EMS instructor education is derived from the following sources:
   1. National EMS Education and Practice Blue Print
   2. EMS Agenda for the Future
   3. EMS Education Agenda for the Future
   4. Revisions of BLS and ALS National Standard Curricula (NSC)
   5. DOT EMS Instructor NSC (Revised 2002)

B. Secondary sources of information on education
   1. Education professional groups
   2. Academic settings
   3. Internet sites on education
   4. Collected bodies of knowledge recognized for their expertise in educational theories and best practices
   5. Others

IV. Professional attributes and skill sets of EMS instructors

A. Ten professional attributes and skills sets are identified for EMS instructors

B. Professional Attributes and Skills Set Criteria #1: The EMS educator understands the central concepts, tools of inquiry, and structures of the EMS discipline(s) they teach and can create learning experiences that make these aspects of subject matter meaningful for the adult learner
   1. Cognitive Goals
      a. Understands major concepts, assumptions, debates, processes of inquiry, and ways of knowing that are central to the discipline(s) they teach.
      b. Understands how the adult learners' conceptual frameworks and their misconceptions for an area of knowledge can influence their learning
      c. Can relate knowledge of the discipline to other specific subject areas

2. Affective Goals
    a. Realizes that EMS subject matter knowledge is not a fixed body of facts but is complex and ever evolving; they seek to keep abreast of new ideas and understandings in the EMS field
    b. Appreciates multiple perspectives and conveys to adult learners how knowledge is developed from the vantage point of the learner
    c. Has enthusiasm for the discipline(s) they teach and is able to relate the subject matter to clinical practice
    d. Is committed to continuous learning and engages in professional discourse about subject matter knowledge
3. Performance Outcomes
    a. Effectively uses multiple representations and explanations of concepts that capture key ideas and link them to the adult learners' prior understandings
    b. Can represent and use differing viewpoints, theories, "ways of knowing" and methods of inquiry in the teaching of subject matter concepts
    c. Can evaluate teaching resources and curriculum materials for their comprehensiveness, accuracy, and usefulness for representing particular subject matter and concepts
    d. Develops and uses curricula that encourage the adult learner to see, question, and interpret ideas and subject matter from diverse perspectives
    e. The EMS educator can create interdisciplinary learning experiences that allow the adult learner to integrate knowledge and skills from several subject areas

C. Professional Attributes and Skills Set Criteria #2: The EMS educator understands how the adult student learns, and can provide learning opportunities that support their intellectual, professional and personal development
1. Cognitive Goals
    a. Understands how learning occurs--how the adult learner constructs knowledge, acquires skills, and develops values--and knows how to use instructional strategies that promote student learning
    b. Understands that the adult learners' physical, social, emotional, moral and cognitive attributes influence learning and knows how to address these factors in the instructional environment
    c. Is aware of the domains of learning (cognitive, affective and psychomotor), can identify levels of readiness in learning, and understands how development in any one domain may affect performance in others
2. Affective Goals
    a. Appreciates individual variations within each domain of learning, shows respect for the diverse talents of all learners, and is committed to helping them develop self-confidence and competence
    b. Uses the adult learners' strengths as a basis for growth, and their errors as an opportunity for learning
3. Performances Outcomes
    a. Considers the level of individual and group performance in order to deliver instruction that meets learners' current needs in each domain (cognitive, affective and psychomotor)
    b. Stimulates student reflection on prior knowledge and links new ideas to already familiar ideas, making connections to the adult learners' experiences, providing opportunities for active engagement, manipulation, and testing of ideas and materials, and encouraging the adult learner to assume responsibility for learning and performance outcomes

c. Considers the adult learners' experiences as a basis for instructional activities by, encouraging discussion, listening and responding to group interaction, and eliciting samples of student thinking orally and in writing

D. Professional Attributes and Skills Set Criteria #3: The EMS educator understands how the adult learner differs in their approaches to learning and creates instructional opportunities that can be adapted to diverse learning styles and situations.

1. Cognitive Goals
   a. Understands and can identify differences in approaches to learning and performance, including different learning styles and performance levels, and can provide instruction that helps use the adult learners' strengths as the basis for growth
   b. Knows about areas of exceptionality in learning--including learning disabilities, visual and perceptual difficulties, and special physical or mental challenges
   c. Understands how individual experiences, talents, and prior learning experience influence adult learning
   d. Has a well-grounded framework for understanding cultural diversity and knows how to learn about and draw upon the adult learners' experiences and cultures in the instructional setting
2. Affective Goals
   a. Believes that all adult learners can learn at high levels and persists in helping all students to achieve success
   b. Appreciates and values human diversity, shows respect for the adult learners' varied talents and perspectives, and is committed to the pursuit of individual excellence for all students
   c. Respects adult learners as individuals with differing personal and family backgrounds and various skills, talents, and interests
   d. Is sensitive to community and cultural norms
   e. Makes the adult learner feel valued for their potential as EMS provider
3. Performance Outcomes
   a. Selects instructional techniques and methods appropriate to the adult learners' learning styles, strengths, and needs
   b. Recognizes and seeks assistance in making appropriate provisions (in terms of time and circumstances for work, tasks assigned, communication) for the adult learner who has particular learning differences or needs
   c. Can identify when and how to access appropriate services or resources to meet exceptional learning needs
   d. Seeks to understand the adult learners' culture, and uses this information as a basis for connecting instruction to the adult learners' experiences (e.g. drawing explicit connections between subject matter and clinical practice, making assignments that can be related to the adult learners' experiences)
   e. Creates a learning community within the classroom setting in which individual differences are respected

E. Professional Attributes and Skills Set Criteria #4: The EMS educator understands and uses a variety of instructional strategies to encourage the adult learners' development of high level thinking skills, problem solving skills, and psychomotor performance skills

1. Cognitive Goals
   a. Understands the cognitive processes associated with various kinds of learning (e.g. high level, critical and creative thinking, problem solving, memorization and recall) and how these processes can be stimulated

b. Understands principles and techniques, along with advantages and limitations, associated with various instructional strategies (e.g. lecture format, demonstration, scenario based, participatory learning, etc.)
c. Knows how to enhance learning through the use of a wide variety of materials as well as human and technological resources (e.g. computers, audio-visual technologies, videotapes and discs, local experts, texts, reference books)

2. Affective Goals
   a. Values the development of the adult learners' critical thinking, independent problem solving, and skill performance capabilities
   b. Values flexibility and reciprocity in the teaching process as it relates to student responses, ideas, and needs
3. Performance Outcomes
   a. Uses learning goals to assist in choosing teaching strategies and materials to achieve instructional purposes and to meet student needs
   b. Uses teaching and learning strategies to engage the adult learner in active learning opportunities that promote the development of critical thinking, problem solving, and skill performance capabilities and that help the student assume responsibility for identifying and using learning resources
   c. Varies their role in the instructional process (e.g. instructor, role modeling, coach,) in relation to the content and purposes of instruction and the needs of the adult learner
   d. Utilizes a variety of clear, accurate presentations of EMS concepts, using alternative explanations to assist the adult learners' understanding

F. Professional Attributes and Skills Set Criteria #5: The EMS educator uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive group interaction, active engagement in learning, and self-motivation

1. Cognitive Goals
   a. Understands how groups function and how to influence people in the educational environment
   b. Knows how to assist the adult learner to work productively and cooperatively with others in the educational environment
   c. Understands the principles of effective classroom management and uses the knowledge to promote positive relationships, cooperation, and purposeful learning in the classroom
   d. Recognizes factors and situations that are likely to promote or diminish intrinsic motivation, and knows how to help the adult learner become self-motivated
2. Affective Goals
   a. Takes responsibility for establishing a positive climate in the classroom and participates in maintaining such a climate
   b. Values the role of the adult learner in promoting each other's learning and recognizes the importance of peer relationships in establishing a climate of learning
   c. Recognizes the value of intrinsic motivation to the adult learners' life-long growth and learning
3. Performance Outcomes
   a. Creates a learning setting in which the adult learners assume responsibility for themselves and one another, participate in decision making, work collaboratively and independently, and engage in purposeful learning activities
   b. Engages the adult learner in individual and cooperative learning activities that help them develop the motivation to achieve by, for example, relating didactic lessons to clinical experiences, encouraging the adult learner to ask questions and pursue problems that are meaningful to them

c. Maximizes the amount of class time spent in learning by creating expectations and processes for communication and behavior along with a physical setting conducive to education goals
d. Helps the group to develop shared values and expectations for student interactions, academic discussions, and individual and group responsibility that create a positive classroom climate of openness, mutual respect, support, and inquiry

G. Professional Attributes and Skills Set Criteria #6: The EMS educator uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
1. Cognitive Goals
a. Understands how cultural and gender differences can affect communication in the classroom
b. Recognizes the importance of nonverbal as well as verbal communication
c. Knows about and can use effective verbal, nonverbal, and media communication techniques
2. Affective Goals
a. Values many ways in which people seek to communicate and encourage many modes of communication in the classroom
b. Is a thoughtful and responsive listener to students concerns and questions
c. Appreciates the cultural dimensions of communication, responds appropriately, and seeks to foster culturally sensitive communication by and among all the adult learners in the class
3. Performance Outcomes
a. Models effective communication strategies in conveying ideas and information and in asking questions (e.g. monitoring the effects of messages, restating ideas and drawing connections, being sensitive to nonverbal cues)
b. Knows how to ask questions and stimulate discussion in different ways for particular purposes, for example, probing for learner understanding, helping the adult learner articulate their ideas and thinking processes, promoting risk-taking and problem-solving, facilitating factual recall, stimulating curiosity, helping the adult learner to question
c. Communicates in ways that demonstrate sensitivity to cultural and gender differences (e.g. appropriate use of eye contact, interpretation of body language and verbal statements, acknowledgment of and responsiveness to different modes of communication and participation)
d. Knows how to use a variety of media communication tools, including audio-visual aids and computers, to enrich learning opportunities

H. Professional Attributes and Skills Set Criteria #7 The EMS educator plans instruction based upon knowledge of subject matter, the attributes of the adult learner, and curriculum goals
1. Cognitive Goals
a. Understands the basics of learning theory, and is competent in the subject matter, is aware of the process of curriculum development, and knows how to use this knowledge in the instructional setting to meet instructional goals
b. Knows when and how to adjust instructional delivery methods based on student responses and performances
2. Affective Goals
a. Values both long term and short term planning to ensure a productive classroom setting
b. Believes that plans must always be open to adjustment and revision based on student needs and changing performance outcomes
c. Values planning as a collegial activity and includes other instructors and students in the process

3. Performance Goals
    a. Provides learning experiences that are appropriate for curriculum goals, relevant to learners, and based upon principles of effective instruction (e.g. that activate the adult learners' prior knowledge, encourages exploration and problem-solving, and builds new skills on those previously acquired)
    b. Plans for learning opportunities that recognize and address variations in learning styles and performance modes
    c. Respond to unanticipated sources of input, evaluates plans in relation to short- and long-range goals, and systematically adjusts plans to meet student needs and enhance learning

I. Professional Attributes and Skills Set Criteria #8: The EMS Educator understands and uses formative and summative strategies with both formal and informal techniques to evaluate and ensure the continuous cognitive, affective and psychomotor development of the learner
1. Cognitive goals
    a. Is aware of the characteristics, uses, advantages, and limitations of different types of assessments (e.g. criterion-referenced and norm-referenced instruments, traditional standardized and performance-based tests) for evaluating the adult learner
    b. Knows how to select and use assessment strategies and instruments appropriate to the learning outcomes being evaluated
2. Affective Goals
    a. Values ongoing assessment as essential to the instructional process and recognizes that many different assessment strategies, accurately and systematically used, are necessary for monitoring and promoting student learning
    b. Is committed to using assessment to identify student strengths and promote student growth rather than to deny the adult learner access to learning opportunities
3. Performance Outcomes
    a. Appropriately uses a variety of formal and informal assessment techniques (e.g. observation, portfolios of student work, teacher-made tests, performance tasks, projects, student self-assessments, peer assessment, and standardized tests) to evaluate the adult learners' progress and performances, and modify teaching and learning strategies
    b. Uses assessment strategies to involve learners in self-assessment activities, to help them become aware of their strengths and needs, and to encourage them to set personal goals for learning
    c. Evaluates the effect of class activities on both individuals and the class as a whole, collecting information through observation of classroom interactions, questioning, and analysis of student work
    d. Monitors his or her own teaching strategies and behavior in relation to student success, modifying plans and instructional approaches accordingly
    e. Maintains useful records of student work and performance and can communicate student progress knowledgeably and responsibly to the adult learner

J. Professional Attributes and Skills Set Criteria #9: The EMS educator is a reflective practitioner who continually evaluates the effects of their choices and actions on others (the adult learner and other professionals in the learning community) and who actively seeks out opportunities to grow professionally
1. Cognitive Goals
    a. Understands methods of inquiry that provide them with a variety of self-assessment and problem-solving strategies for reflecting on their practice and its influences on the adult learner

b. Is aware of major areas of research on teaching and of resources available for professional learning (e.g. professional literature, colleagues, professional associations, and professional development activities)

2. Affective Goals
   a. Values high level thinking and self-directed learning
   b. Is committed to reflection, assessment, and learning as an ongoing process
   c. Is willing to give and receive help
   d. Is committed to seeking out, developing, and continually refining practices that address the individual needs of the adult learner
   e. The EMS educator recognizes their professional responsibility for engaging in and supporting appropriate professional practices for self and colleagues
3. Performance Outcomes
   a. Uses classroom observation, information about the adult learner, and research as sources for evaluating the outcomes of teaching and learning and as a basis for experimenting with, reflecting on, and revising practice
   b. Seeks out professional literature, colleagues, and other resources to support their own development as a learner and a teacher
   c. The EMS educator draws upon professional colleagues as supports for reflection, problem-solving and new ideas, actively sharing experiences and seeking and giving feedback

K. Professional Attributes and Skills Set Criteria #10: The EMS educator fosters relationships with EMS colleagues and EMS agencies in the larger community to support the students learning and well-being
1. Cognitive Goals
   a. Understands the EMS educational program is an organization within the larger EMS community and understands the operations of the relevant aspects of the EMS system within which they work
   b. Understands how factors in the adult learners environment outside of school (e.g. family circumstances, community environments, health and economic conditions) may influence the adult learners life and learning
   c. Understands and implements laws related to the adult learners rights and teacher responsibilities (e.g. for confidentiality, privacy, and appropriate treatment of the adult learner)
2. Affective Goals
   a. Values and appreciates the importance of all aspects of the adult learners classroom experience
   b. Respects the privacy of the adult learner and confidentiality of information
   c. Is willing to work with other professionals to improve the overall learning environment for the adult learner
3. Performance Outcomes
   a. Participates in collegial activities designed to make the EMS program and educational setting a productive learning environment
   b. Makes links with the adult learners' other environments on behalf of the adult learner, by consulting with other EMS educators and professionals in other EMS agencies
   c. Can identify and use EMS community resources to foster student learning
   d. Talks with and listens to the student, are sensitive and responsive to clues of distress, investigates situations, and seeks outside help as needed and appropriate to remedy problems
   e. Acts as an advocate for the adult learner

V. General professional educator characteristics

A. The following listing of characteristics are considered appropriate for educators in most settings:
   1. Possessing integrity and honesty
   2. Empathetic and compassionate
   3. Highly self-motivated
   4. Maintains a professional appearance with good personal hygiene
   5. Self-confident
   6. Possesses clear verbal and written communication skills
   7. Exhibits effective time management
   8. Advocates the teamwork approach for teaching and for student interaction
   9. Diplomatic and respectful when dealing with others
   10. Has a desire to continue improving, growing professionally and intellectually (valuing "life-long learning")
   11. Possesses knowledge of the subject and content areas
   12. Is a student advocate

VI. EMS provider professional behaviors and characteristics
   A. The DOT NSC for the EMT-paramedic identifies the following eleven professional behaviors for paramedics
   B. These characteristics apply to all levels of EMS provider, including instructors
      1. Integrity
      2. Empathy
      3. Self-motivation
      4. Appearance / personal hygiene
      5. Self-confidence
      6. Communications
      7. Time management
      8. Teamwork and diplomacy
      9. Respect
      10. Patient advocacy
      11. Careful delivery of services

VII. Definition of primary instructor
   A. The "primary instructor" is defined by the scope of responsibility more so than by seniority or time spent in direct instruction of students
      1. The primary instructor is often the individual held responsible for a course
   B. The primary instructor has experience in teaching and may be moving into a role with greater program responsibilities in addition to classroom responsibilities
      1. Some classification strategies for EMS educators call the primary instructor the "lead" or "instructor of record" and instructors who assist this individual in the classroom are sometimes called "support" or "adjunct" instructors
         a. For purposes of consistency in this curricula, the terms primary and secondary instructor will be used
            i. The content of this curriculum applies to both the primary and secondary instructor
            ii. The individual user of this curriculum will determine how to best implement this curriculum to meet their unique needs and obligations. See Module 1 for a discussion of recommended implementation strategies.
      2. In addition to using "primary" and "secondary" to describe EMS instructors, another method classifies instructors into distinct levels based upon education credentials and/or teaching experience
         a. Depending upon the classification strategy used the most senior instructor may have a higher or lower number designation
            i. Example one: Level I: most senior instructor, Level II: assistant instructor, Level III: clinical instructor, Level IV: field preceptor, etc.

ii. Example two: Level 1: classroom presenter and/or probationary new instructor, Level 2: experienced educator with X # of hours teaching, Level 3: course coordinator, Level 4: instructor trainer, etc.

VIII. The primary instructor may be called upon to provide leadership or oversight of the course in the following areas:

A. Program responsibilities: the primary instructor may also serve at a program level to assist in coordinating operations of the training program and other courses

B. Course administration: completing documentation and paperwork and providing timely feedback to the stakeholders in the course

1. Stakeholders are those individuals who have a financial stake or interest in the successful completion of the course and its students
2. Examples of some types of stakeholders: employer, employee union, course sponsor etc.

C. Course coordination: including coordinating visiting faculty and guest lecturers, secondary instructors, clinical rotations, fieldtrips, etc.

D. Interface with the Medical Director and course stakeholders on a regular basis

E. Guidance on policies and procedures for the courses or program

1. Selecting and screening students
2. Evaluating the students and program

F. Student discipline and feedback

1. Assess the student and situation to identify the problem and the cause of the problem
2. Work with medical director, program administration, faculty, and the student to correct problem behaviors

G. Student remediation

1. Assess the student and situation to identify the cause of the problem
2. Develop a workable strategy to assist the student in succeeding on reevaluation

H. Classroom instruction: deliver curriculum, mentor junior and support instructors, and ensure that the class maintains a high standard of quality

I. Perform all of the additional duties listed as secondary instructor duties

IX. Definition of a secondary instructor

A. Like the primary instructor, the secondary instructor is often defined by the scope of responsibility

1. The main responsibilities of the secondary instructor are to provide instruction to the student and to support the primary instructor

B. Because the primary instructor often sets the tone for the class the secondary instructor must be aware of the expectations of the primary instructor regarding:

1. Content to be covered
2. Presentations styles expected for content delivery
3. Rules and regulations pertinent to the class

C. The secondary instructor generally possesses an entry level competency and is not expected to behave or perform with the same proficiency as an "experienced" teacher

1. The optimal relationship between the primary instructor and secondary instructor is one where mentoring and professional growth is taking place for both individuals

X. Common EMS instructor roles & responsibilities

A. Manage daily class activities

B. Manage the learning environment

C. Monitor student attendance

D. Provide evaluations and feedback to students, course coordinator, medical director, and appropriate stakeholders as appropriate

E. Manage discipline and grievance issues

F. Manage course paperwork

G. Maintain course and student records

H. Teach: deliver didactic content, direct and control classroom discussions, conduct practical skills development sessions, evaluate student performance on cognitive, affective and psychomotor skills

I. Design/develop (as required) and effectively use testing instruments
J. Mentor students and faculty
K. Adhere to the course syllabus
L. Design/develop (if required) and effectively use lesson plans

XI. Managing daily class activities
- A. Additional information on this topic is interspersed through this curriculum in several modules
- B. Maintain schedule as posted in syllabus
- C. Set the tone for the classroom environment by modeling desired affective behaviors

XII. Managing the learning environment
- A. See Module 6: The Learning Environment for more information
- B. Assure classes are held in an adequate learning environment
  1. Adequate room size, lighting, ventilation, and temperature are all considerations
- C. Start and end class sessions on time
  1. Breaks are important
- D. Vary the pace of delivery and content of material as appropriate to keep class interesting and the learners engaged

XIII. Manage student attendance
- A. Create and review student attendance rosters
- B. Comply with reporting requirements regarding attendance
- C. Provide feedback to students and appropriate stakeholders throughout class

XIV. Provide evaluations and feedback
- A. Refer to Module 12: Evaluation Techniques for more information on feedback and evaluations
- B. To be most effective, feedback should be continuous and timely
- C. Provide students, course administration, the medical director and appropriate stakeholders with regular progress reports
  1. Grade tests and papers quickly
- D. Process and report course grades by the specified deadline

XV. Manage discipline and grievance issues
- A. Refer to Module 19: Discipline, and Module 14: Communication and Feedback for additional information
- B. Each student should be aware of their right to an environment free of violence, threats, harassment, demeaning comments and other negative conduct
- C. Students must have access to a process for reporting problems
  1. Determine if your agency has a formal policy already in place
  2. Provide students with copies of policies and procedures
  3. Consider designing a student handbook if one does not exist
     a. Involve your medical director, program coordinator and advisory group in the development of any policies or procedures
- D. Problems must be investigated and resolved by the instructor
  1. Determine if it can be resolved at your level or it needs to be taken further up the chain of command
     a. You may need to consult with your supervisor or employer
  2. Remember to maintain confidentiality of all parties involved
- E. Students who fail to adhere to appropriate conduct rules may be removed from the classroom and or reported to other authorities
  1. Ensure students have knowledge of the appeals process
  2. Issues of insensitivity may require outside intervention and or counseling (e.g., racial slurs, inappropriate gender remarks, etc.)
  3. If the incident involves illegal activity, domestic violence or abuse you MUST report it to the proper authorities

XVI. Manage course paperwork

A. Understand and comply with all laws and regulations regarding the maintenance and storage of confidential files and information
B. Maintain accuracy and confidentiality of:
    1. Attendance roster
    2. Course grade report
    3. Disciplinary action report
    4. Student conference and counseling report
    5. Course correspondence

XVII. Maintain course and student records
A. Verify with the state EMS office, accrediting body, and academic host of the course the amount of time required to maintain student and course records
    1. When in doubt ' don't throw it out!
B. Records may be maintained in writing, on computer file, or via other media (example: microfiche) as approved
C. Records must be kept in a secure area (e.g., locked file cabinet, secured computer with password, etc.)
D. Confidentiality of information is very important
    1. Students must not be identified by personal information if grades and or progress reports are distributed publicly
E. Student and course information and records may not be accessible by stakeholders unless:
    1. The student has given written permission to release documents and information
    2. The document or information has been demanded through a legal summons

XVIII. Teach
A. Modules 11 through 18 contain additional information on the following topics; 11: Presentation Skills, 12: Evaluation Techniques, 13: Facilitation Techniques, 14: Communication and Feedback, 15: Motivation, 16: Teaching Thinking Skills, 17: Teaching Psychomotor Skills, and 18: Affective Domain
B. Deliver didactic content
    1. Use a variety of methods including lecture to deliver didactic content
    2. Vary the pace and content to keep students engaged
    3. Include material for every learning style (auditory, visual and kinesthetic learners)
C. Direct and control classroom discussions
    1. Provide equal access to all students and encourage participation, monitoring and controlling students who monopolize conversations
        a. Advocate for introverted students by encouraging them to participate
    2. Encourage open discussion
    3. Do not allow discussions to become lengthy without direction or purpose
D. Conduct instruction in practical skills development
    1. Included in the appendix of this document is a practical skill sample lesson plan
    2. Meet with all secondary instructors to ensure consistency in procedures and expectations
E. Evaluate practical skills competence
    1. Practical skills competence should be measured on multiple occasions at various levels of mastery
    2. Mastery of skills must be thoroughly documented and reviewed
F. Observe student classroom and laboratory performance
    1. Demonstrate skills objectives during classroom / laboratory setting
G. Allow students to practice the skill under direct observation, for example, by performing the skill in a simulated patient encounter or scenario
    1. Direct the practice of the skill with close supervision and feedback
    2. Evaluate the skill
    3. Remediate as needed to achieve successful performance
    4. Reevaluate to document when mastery level performance occurs

5. Review periodically to ensure mastery is maintained

XIX. Design/develop (as required) and effectively use testing instruments
- A. Module 8: Domains of Learning and Module 9: Goals and Objectives has useful information necessary to understand the evaluation process
- B. Module 12: Evaluation Techniques lists specific types of evaluation instruments
- C. Testing may be through written, oral or skills demonstrations and should be conducted in each Domain of Learning
- D. Test design may not be required of entry level instructors
  1. It is important for an entry level instructor to understand the goal of the testing and what level of proficiency is required for the student to be successful
     a. This is critical when psychomotor skills are being evaluated
  2. Question items should always be designed based upon the objectives of the presented material
  3. It is always important to review "test banks" or "canned" testing items for accuracy and relevancy
- E. Provide students with timely feedback following an evaluation (report grades and give suggestions for improvement when appropriate)
- F. Many written test formats are available
  1. Multiple choice
  2. Short answer / essay
  3. True false
  4. Fill in the blank
  5. Matching
- G. Test item formats are explored in detail in Module 12: Evaluation Techniques
  1. Multiple choice questions are extremely common in EMS tests
     a. National and state licensing examinations usually contain only multiple choice items
     b. Multiple choice questions may be purchased through vendors in test banks (textbook publishers, websites, colleagues) or written by the instructor
  2. Regardless of the format used, all test items should be evaluated for validity and reliability
     a. Validity - does the test item test the knowledge intended
     b. Reliability - does the test item reproduce similar results when administered over a period of time

XX. Mentoring
- A. EMS instructors should develop professional relationships with students
- B. Foster growth and development of students through excellent teaching, feedback and support
  1. Encourage students who show an aptitude for teaching to get more involved
  2. Help facilitate their progress through the instructor credentialing process
- C. Serve as an on-going and renewable resource for students by assisting the process of networking
- D. Assist other instructors in their development by sharing ideas and experiences
  1. Seek their input and advice on issues of importance as well as day to day issues in classroom administration
  2. Encourage experimentation in the classroom by new instructors
     a. Model the behaviors you expect instructors to emulate
     b. Understand that failure is a natural and expected part of the growth and development of competence in teaching
     c. Introduce new instructors to your network of peers

XXI. Maintaining the course syllabus
- A. The course syllabus is a dynamic document that provides accurate information on the policies and procedures for the course
  1. It is often considered a legal document so it is important to review and revise the syllabus prior to beginning each new cohort group

a. It may be the basis for determining the course rules, regulations, policies and procedures when a grievance is brought forward by a student
b. Many programs require students sign documentation verifying receipt of the syllabus or to verify they have read and/or understand the document

B. Check with your agency for guidelines and a sample document
1. Determine if there is a specific format that is required

C. The entry level instructor may not be called upon to actually write a syllabus, but every instructor should ensure that the following elements are included:
1. Instructor's contact information
2. Objectives for the course
3. Outline of topics of instruction
4. Details of grading scale and policy
5. Rules, regulations, policies and procedures
6. Additional information

D. Instructor's contact information
1. Do not disclose home address or phone number
2. Arrange a means of contact through the course administrator/coordinator that allows for reasonable access during normal business hours
a. Arrange for a means of communication when access is needed outside of normal business hours, like during weekend clinical rotations, that maintains your personal privacy

E. Objectives for the course
1. Sometimes a reference to a block of DOT/NSC objectives along with information on where to obtain the DOT/NSC curricula are given instead of listing every objective
a. When this occurs it is recommended that copies of the DOT/NSC curricula objectives be easily available to students upon request

F. Outline of topics of instruction
1. Include date, time and location of each class session (especially if this varies)
2. Reading assignment
3. Include additional information pertinent for that session like any uniform or special dress requirement, equipment or supplies the student should bring with them, etc.

G. Details on grading scale
1. Include an evaluation strategy or process for each domain of learning: cognitive, affective and psychomotor
2. More information on this topic is available in Module 8: Domains of Learning

H. Rules, regulations, policies and procedures
1. Address the following:
a. Absences
b. Tardiness
c. Grievance procedures
2. Rules and regulations come from many sources: state and national standards and guidelines, local jurisdiction, hosting academic setting, and your personal rules and regulations
a. It is important to review these to determine if there is any conflict between the rules and regulations from a variety of sources
b. Seek to resolve these conflict before a problem occurs in the classroom setting
c. Example: The state EMS agency allows students to miss a total of 9 hours during an EMT-B course but the college that hosts this course does not have any attendance policy and their student guidebook states that there is no official attendance policy. This issue needs to be resolved before the class begins.

d. Provide students with information on their rights as well as their responsibilities and how to begin a grievance

I. Additional information
   1. Inclement weather statements, ADA accommodation requirements and physical examination requirements are examples of additional information that may be included

XXII. Design/develop (if required) and effectively use lesson plans
   A. This section provides an overview of why lesson plans are important and lists several sources
   B. Module 10: Lesson Plans has additional information on lesson plans, including a description of all of the elements that make up a lesson plan
   C. An entry-level EMS instructor may not be required to write a lesson plan
      1. Each time an instructor teaches, even if they are using a prepared lesson plan, they need to modify it to their specific needs
   D. EMS instructors have varied perspectives for the amount of detail in lesson plans
      1. Included in the appendix of this curricula are several sample lesson plans that illustrate different levels of detail
      2. Even experienced educators need to use lesson plans to keep their teaching focused and organized
   E. A lesson plan should be used to assure that required material is covered during the allotted time and that it is covered in the correct sequence
   F. Lesson plans should be available for all instructors and guest lecturers
   G. Update lesson plans to reflect changes in curricula and or current educational models
   H. Sources for prepared lesson plans
      1. Federal agencies
         a. DOT/NHTSA
            i. National Standard Curricula for EMS topics and for specialty items like transportation issues
            ii. According to the EMS Agenda for the Future, the future of the NSC is to move away from providing lesson plans in the curricula so it is imperative that EMS educators know how to design, develop and utilize a lesson plan
         b. Maternal Child Health Bureau (MCHB)
         c. Department of Labor (DOL)
         d. Occupational Safety and Health Administration (OSHA)
         e. Centers for Disease Control (CDC)
         f. Department of the Environment (DOE)
         g. Federal Emergency Management Agency (FEMA)
      2. Lesson plans for proprietary continuing EMS education courses (sometimes referred to as "canned products")
         a. There are too many courses to list each individually and more are being developed all the time
         b. Using these materials may or may not require additional instructor credentials, special permission or financial arrangements
            i. Resource materials from these courses may be available even if you are not seeking course completion or certification
      3. Publishers have companion material for textbooks
         a. Instructor guides and lesson plans
         b. Website support
      4. Other sources of material
         a. Medical equipment and supply manufacturers and vendors
            i. Canned specialty topic areas for their equipment or supplies
            ii. Be cautious of bias in their presentations
         b. EMS instructor groups sharing resources
         c. State EMS agency training division or bureau

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Altman and Cashin. (1992). *Writing a syllabus, Idea Paper no. 27.* Manhattan: Kansas State University.
DOT/NHTSA EMT-Paramedic NSC.

Grunert, R. M. (n.d.) *The Course Syllabus: A Learning-Centered Approach.* Bolton: Anker Publishing Company.

Nilson, L. B. (n.d.) *Teaching At Its Best A Research-Based Resource For College Instructors.* Bolton: Anker Publishing Company.

Module 3: Administrative Issues

Cognitive Goals

At the completion of this module, the student-instructor should be able to:

1. Identify resources at the federal level for obtaining information on policies and procedures for EMS education programs and courses
2. Identify resources at the state level for obtaining information on policies and procedures for EMS education programs and courses
3. Identify resources at the local level for obtaining information on policies and procedures for EMS education programs and courses

Psychomotor Goals

There are no psychomotor objectives for this module

Affective Goals

At the completion of this module, the student-instructor should be able to:

3.1 Describe the importance of understanding the policies and procedures put in place for EMS instructors for conducting EMS education programs and courses

Declarative

I. Why is this module important?
   - A. Instructors must adhere to the local, state and federal rules and regulations which pertain to the EMS education program
   - B. In some circumstances, violations of these rules or regulations may result in criminal and/or civil liability to the instructor or training agency
     1. Example: Violation of a student's confidentiality or privacy rights by disclosing information to unauthorized sources
     2. Example: Failure to meet established deadlines for submission of student applications to National Registry resulting in the inability of the student to take the licensing examination when he or she planned to

II. Sources of information on policies and procedures
   - A. Federal level
     1. United States Department of Transportation
        - a. National Highway Traffic Safety Administration
     2. Health Resources and Services Administration
        - a. Maternal Child Health Bureau
          - i. EMS for Children
     3. National Association of State EMS Directors
     4. National Association of State EMS Training Coordinators
     5. American College of Emergency Physicians
     6. National Association of EMS Physicians
     7. National Registry of Emergency Medical Technicians
     8. Committee on Accreditation for EMS Professionals
     9. Continuing Education Certification Board for EMS
     10. American Society for Testing and Materials
     11. Federal Emergency Management Agency
     12. National Association of EMTs
     13. International Association of Fire Fighters
     14. International Association of Fire Chiefs
     15. National Association of EMS Educators

16. Occupational Safety and Health Agency

B. State resources
   1. Insert information from your own state here
   2. State EMS office
      a. Location of agency varies by state and may be found within the health department or some other department or bureau
      b. Often the agency is subdivided into smaller units
         i. Education and training section
         ii. Certification and licensure section
         iii. Administrative section
         iv. Public information and media relations
         v. Etc.
   3. State code or laws for rules and regulations regarding all aspects of EMS
      a. How can you access this information?
      b. Is it available online?
   4. State chapters of federal organizations listed above
   5. State higher education commission
   6. Accreditation bodies
      a. State EMS accreditation standards
      b. National EMS program accreditation bodies
      c. Academic schools and higher education (colleges and university) settings accreditation bodies

C. Local or program specific sources
   1. Insert information from your own state here
   2. Jurisdictional training agency rules and regulations
   3. College or university based rules and regulations
   4. Company policies and procedures

III. Types of information available to you
   A. Curriculum standards and resources (model curricula, lesson plans and even entire programs)
   B. Legal statutes
   C. Safety rules and regulations
   D. Information on contacts within the organization
   E. Best practices standards
   F. Equipment and vehicle standards and guidelines
   G. Educational research and other grant opportunities

IV. Department policies and procedures
   A. For legal protection, awareness in the following areas as appropriate to the level of instruction is required
      1. Rules and regulations from your organization (instructor or faculty manual)
      2. Job description and listing of duties and responsibilities of the EMS instructor
      3. Student handbook
         a. See Appendix for sample student handbook
      4. Student grievance procedures
      5. Disciplinary guidelines
         a. See appendix for sample document on classroom behavior
      6. Inclement weather policy
      7. Program administrative procedures
      8. Mission statement for the agency you are teaching for
      9. Contact information for course coordinator, medical director, program administrator and training site support personnel
      10. Other documents as described by your sponsoring organization

Bibliographical References

Bartram, S., and Gibson, B. (1995). *The Training Needs Analysis Toolkit*. Amherst: HRD Press.

Chism, N.V.N. (n.d.). *Peer Review Of Teaching: A Sourcebook*. Bolton: Anker Publishing Company.

Merriam, S. (1996). Updating our knowledge of adult learning. *Journal of Continuing Education in the Health Professions. 16(3)*, 136-43.

Module 4: Legal Issues in EMS Education

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Define liability, negligence and the standard of instruction
2. Identify areas of legal liability for the instructor and the educational institution
3. Identify risk management considerations for the student, instructor, and educational institution
4. Explain the importance of confidentiality
5. Identify applicable federal, State and local laws which affect the EMS teaching profession and the educational institution
6. Explain legal considerations regarding copyright and intellectual property issues

Psychomotor Goals

There are no psychomotor objectives for this module

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Value the importance of adhering to local, state, and federal laws governing the teaching profession and the conduction of EMS education programs

Declarative

I. Why this module is important?
   - A. We live in a litigious society and EMS instructors and training institutions are not immune from suits or liability
     1. Ignorance of the law is not an excuse
   - B. All EMS providers should have a clear understanding of the common elements of EMS law
     1. It is the EMS instructors responsibility to inform the student of EMS laws
     2. Instructors should provide students with current legal resource sites
   - C. Instructors should be aware of laws that pertain to the practice of teaching

II. Liability
   - A. Something for which one is legally obligated

III. Negligence
   - A. Is considered synonymous with malpractice
   - B. 4 elements are included and must be proven
     1. Duty to act
        - a. The individual believed to be responsible had a legal obligation to act
     2. Breach of duty
        - a. The duty to act was breached by doing (committing) or not doing (omitting) a reasonable and prudent action
     3. Injury
        - a. An injury was sustained to the person who is suing
     4. Cause (or causation)
        - a. A linkage exists between the injury that occurred and the breach of the duty to act

IV. Standard for instruction
     1. The standard of instruction is similar in concept to the standard of care
        - a. It represents the actions of a "reasonable and prudent" individual who possesses similar training and experience
        - b. It may be defined within state law
     2. National standards for EMS instructors

a. Currently there is no standardized set of guidelines agreed upon by all stakeholders of EMS regarding instructor standard of practice
    i. This document (and previous versions of this document) is an attempt to provide a standard
b. Some states and jurisdictions have formalized programs of instruction and processes for certification and review for instructors to ensure consistency and quality of instruction

3. Various organizations have standards for instructors that may or may not carry the force of law
    a. NHTSA/DOT standards and guidelines
    b. Programs with formal instructor training competencies BCLS, ACLS, PALS, BTLS, PHTLS, etc.
    c. National organizations for EMS instructors within fire-based systems
    d. Others

V. Areas of potential liability for instructors
  A. Discrimination
    1. Use consistent, fair practices for all your students
    2. Listen first and then decide guilt or innocence using due process
    3. Written documentation of every incident for your protection
  B. Harassment
    1. Use consistent, fair practices for all your students
    2. Bring in other instructors to assist you- but do not influence their objectivity with your personal opinions
  C. Sexual harassment
    1. Always be aware of how your actions may look to observers
    2. Avoid intimate situations or contact with students
      a. Counsel students in private but leave the door open
      b. Avoid suggestive statements, even in jest they may be misinterpreted and offensive
  D. Student injury
    1. Clinical experience accidents
    2. Instructor error
    3. Improper or inadequate supervision
    4. Inadequate, malfunctioning or faulty equipment
  E. Patient injury
    1. Due to improper actions by the student (not due to instruction)
    2. Due to improper instruction
    3. Due to inattention of the preceptor
  F. Americans with Disability Act
    1. Scope of this law as it applies to making accommodations for students with learning or physical disabilities
      a. There will be more information on this topic later in this module

VI. Grievance procedures for students
  A. Provide written information on grievance procedures and due process in the student handbook
  B. Allow students to go through the process without intimidation
  C. Document all incidents at the time of occurrence so you can protect yourself later if a grievance arises

VII. Academic honesty issues
  A. Written policies given to students should include:
    1. Academic standards
      a. Grading policies
      b. Penalties for infractions
    2. Policy on internet usage

a. Web sites to use to check to see if the paper a student submits is plagiarized
3. Clearly written statement regarding what constitutes academic dishonesty including:
a. Cheating on examinations
b. Falsification of clinical work and experiences, logs or other program documents
c. Attempts to reconstruct or obtain information regarding examination

B. Affirmative action / equal opportunity
1. Prerequisites and entrance requirements must be fair and impartial
2. Provision for remedial or developmental education

C. Drug and alcohol free environments
1. Drug testing of students
a. May be easier to administrate in settings where the individual is also an employee, (training academy setting) than in a purely academic environment (college)
b. Random and suspicion-based drug testing may be legal
2. Drug testing of instructors
a. Random and suspicion-based drug testing may be legal
3. Possession issues
a. Unauthorized (not prescribed) possession of controlled substances is never allowed

D. Code of Conduct
1. Professional standards like the EMT Code of Conduct exist for practitioners of the EMS profession
a. These documents define the ethic and moral standards of the profession and are applicable to the instructors of these practitioners as well

E. Student right◆s and responsibilities
1. Written code of conduct for the academic setting
a. Places the emphasis on students having responsibilities in addition to rights

F. Student judicial powers
1. May be seen in academic settings like colleges and universities
2. Honor code for cadets of academies may have statement on judicial powers

VIII. Risk management considerations

A. Student health insurance
1. Health insurance supplied by educational or the student is responsible to obtain it independent of the training institution
2. Requirements imposed by the clinical affiliations regarding immunizations, physical examinations, safety training, etc

B. Student malpractice insurance
1. Required by the clinical setting
2. Individual policies may be obtained by students from insurance brokers

C. Instructor malpractice insurance, including errors and omissions
1. Coverage by the employer
2. Scope of coverage
3. Individual policies are available from many of the insurance brokers who provide malpractice insurance to EMS providers

D. Instructor health insurance
1. Liability for your instructors (classroom and clinical) in the event of accidental exposures to biohazard materials

E. Institutional considerations
1. Clinical sites liability
2. Policies and procedures for reporting incidents and exposures
a. Written and notification process
3. Indemnification issues from clinical sites or other agencies

a. Indemnification: to protect and insure against loss, damage, theft, etc. that also provides for reimbursement
    i. This is difficult for some clinical sites, including the government, making clinical contracts sometimes difficult to negotiate

IX. Confidentiality
  A. Buckley Amendment (The Family Education Rights Act of 1974):
    1. This law specifies:
      a. The conditions for availability of funds to educational agencies or institutions
      b. The process for inspection and review of education records
      c. Limits on the specific information to be made available
      d. The procedure for access to education records, including the reasonableness of time for such access
      e. The process for hearings
      f. The procedure and limits on providing written explanations to parents
    2. The law provides students the right to:
      a. Access their education records upon request
      b. Challenge their educational records
    3. Disclosure of "personally identifiable" information from these records, without permission, is illegal
    4. The educational institution has an obligation to notify students in writing of their rights
  B. Identification numbers and privacy
    1. It is a violation of privacy to post student's names with grades or other sensitive information in public view
      a. Training programs may instead use a number to identify students
      b. This creates a secondary issue of security because of the possibility of obtaining a lot of information from an individual through the use of an ID number like the social security number
        i. Some states have enacted legislation prohibiting the use of the SSN (social security number) for identification purposes (other than Social Security) and include the use of the "last 4" digits within that legislation
    2. If a number system is chosen, it should not be the SSN or an easily decoded number

X. U.S. Department of Labor, Internal Revenue Service
  A. Employers must follow laws regarding
    1. Wages and hours to work.
    2. Taxes and FICA
    3. Worker's compensation

XI. Americans with Disabilities Act (ADA)
  A. Certain reasonable accommodations must be made to students with documented disabilities
    1. These accommodations must be reasonable: in other words, if the accommodations represent something that would not be an expected element of job performance, than it is generally safe to provide it
      a. Example 1: Your student cannot read and he has asked for an accommodation to have the test read to him. You will of course take this matter to your administration (and perhaps their lawyers and the state EMS or Attorney Generals office) to solve but most likely you will not have to accommodate this because reading ability is a requirement for the profession
      b. Example 2: Your student has documentation diagnosing dyslexia from a physician. She is able to process information if given a little longer to take written tests. Again you consult with your administration and they rule that it is acceptable to add some additional time to the written test because there does not seem to be a standard in EMS requiring how fast a person must be able to read.

XII. Occupational Safety and Health Administration:

A. Education programs must follow all applicable national and state OSHA rules and regulations

XIII. Copyright and intellectual property issues

A. A document does not have to carry the copyright symbol to be copyrighted
   1. Any document that you did not author completely by yourself is owned by somebody else
      a. The owner/developer deserves credit, and maybe even compensation, for work used in other sources
      b. The "public domain" is anything that is exempt from copyright laws because of the age of the document or if the information is considered to be known by most individuals
         i. For example: the phrase and descriptions for "the ABCs of CPR" is not owned by any particular organization because all of the medical field, and the majority of the lay public, has knowledge of this information and it would be difficult to find the original author of the concept
      c. You should always make a good faith effort to obtain permission to use any document that is not your own

B. Copyright Clearance Center
   1. Is the clearinghouse for permission to use copyrighted materials
      a. A fee is charged for this service
   2. Contact them at: Copyright Clearance Center, Inc. 222 Rosewood Drive, Danvers, MA 01923 Phone 978-750-8400 Fax 978-750-4470 www.copyright.com

C. Copyright Act of 1907
   1. The original copyright law
      a. Difficult to determine how it applies to internet and digital distributed materials
   2. Application of federal law varies by the state and district
   3. Academic usage standards are more general than for the public, but they still exist
   4. "Fair use" test is generally applied for use of materials in an academic setting
      a. Many factors in the fair use test
      b. Consult with the agency attorneys for advice regarding use in academic setting
      c. "Fair use" involves determining how much material is being distributed (whole document vs. parts of a document), how many times it is being used (generally the first time is the only time that is acceptable without paying a fee for use), if the authors are properly cited for their work, and how much the use of the document impacts the owners ability to realize a profit from your use of it

D. Digital Millennium Copyright Act (1998)
   1. This law was enacted to cover copyright issues regarding digital transmission of information
   2. Law is still being defined and tested in court
      a. For example: Be careful that you do not link too far into a website as this may open you up to liability – companies do not want you to bypass their opportunity to present their "for sale" items and may bring suit if you link directly to a document on their website

E. Intellectual property rights
   1. Actual ownership of educational materials you design and produce while employed for an educational setting
   2. Determine if there are any rules and regulations prior to usage
      a. Employer – generally if the product is produced during employment then the employer may claim that it is within the scope of your duties and may retain ownership of the product
      b. If created on your own time, with your own materials you own it
   3. Work for hire arrangements are in effect when you are contracted to produce a product (usually for a publisher)
      a. You seldom retain ownership in this circumstance

4. Royalty arrangements
    a. Individual is paid a fee per every item sold
    b. Individual may also receive a flat fee for work

XIV. Other laws and regulations
  A. Insert here any additional laws that are important to the teaching of EMS in your jurisdiction

XV. Sources for information on EMS laws:
  A. State EMS Office
  B. Federal Government Agencies dealing with regulation and oversight
  C. National organizations
    1. National Association of State EMS Directors
    2. National Association of State EMS Training Coordinators
    3. National Association of EMTs
    4. National Association of EMS Educators: Legal Committee
  D. Trade journals for EMS
  E. Books on EMS law
  F. Internet
    1. Lexus-Nexus is a database of legal manuscripts
    2. EMS organization websites

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Aiken, T. D. (2002). *Legal and ethical issues in Health Occupations*. Philadelphia: W. B. Saunders Company.

Module 5: Ethics

Cognitive Goals

At the completion of this module, the student-instructor should be able to:

1. Use their own words to define ethics and morals
2. Use their own words to identify and describe the basis of the six moral theories described in this module
3. Describe one strength and one weakness for each of the six moral theories described in this module
4. Identify sources of ethical mission statements for educational and emergency medical organizations
5. Describe attributes of an ethical instructor
6. List venues in education that should have ethical role models
7. Describe ways in which ethics can be incorporated into the EMS curricula

Psychomotor Goals:

1. Given a lesson plan or session topic, describe an activity that incorporates an ethical lesson into that session

Affective Goals

At the completion of this module, the student-instructor should be able to:

1. Defend the need to model ethical behavior as instructors

Declarative

I. Why this module is important?
   - A. Ethics is an important part of medicine
   - B. Students will frequently be exposed to situations requiring ethical decisions
   - C. Medical advances are occurring faster than policies regarding medical ethics

II. Bringing ethics into the classroom
   - A. Jump right in – ethics is a hot topic and students are interesting in talking about it
   - B. By introducing it into the course it suggests to students that it is an integral part of EMS
   - C. You are qualified to teach it more than you think – you know EMS and can easily think of times when an ethical question may arise
   - D. We all are ethical people (who follow various theories) and know the difference between right and wrong
   - E. You are teaching – not preaching
     1. Your role is to facilitate discussion
        - a. Introduce ethical issues, concepts and theories
        - b. Challenge students to find ethical problems in an ethical issue or case study
        - c. Guide students towards finding responsible answers or solutions to the problems posed

III. Module terminology
   - A. Ethics, morals and values are difficult to define and many definitions are acceptable

1. Ethics is generally thought of as the study of right action and morals is the system through which that action is applied

   - B. Ethics
     1. The critical examination and evaluation of what is good, evil, right and wrong in human conduct (Guy, 2001)
     2. A specific set of principles, values and guidelines for a particular group or organization (Guy, 2001)
     3. Ethics is the study of goodness, right action and moral responsibility, it asks what choices and ends we ought to pursue and what moral principles should govern our pursuits and choices (Madden, 2000)
   - C. Morals

1. Those principles and values that actually guide, for better or worse, an individual's personal conduct (Guy, 2001)
2. Morality is the informal system of rational beings by which they govern their behavior in order to lesson harm or evil and do good, this system, although informal, enjoys amazing agreement across time and cultures concerning moral rules, moral ideas and moral virtues (Madden, 2000)

D. Values
1. Where emphasis is placed and what is rewarded in an organization and society
2. Guiding principles of behavior and conduct.
3. The core motivator for behaviors

IV. Ethical theories

A. In-depth knowledge is not required but it is important to have an understanding of some of the major theories to help shape classroom discussions

B. Divine Law
1. Based in many religions, primarily Judeo-Christian and Islamic
2. What is considered good? God's will and word
3. What is right behavior? Obeying God's will
4. What are the strengths of this theory? Moral certainty and guidance
5. What are some of the weaknesses of this theory? Moral certainty, self-righteousness and intolerance

C. Virtue Ethics
1. Based in ancient Greek philosophy: Plato and Aristotle
2. What is considered good? Seeking happiness and living the good life
3. What is right behavior? Acting virtuously which is necessary for happiness
4. What are the strengths of this theory? Virtue is it's own reward and leads to self-actualization
5. What are some of the weaknesses of this theory? Consequences, the common good and principle are ignored

D. Egoism
1. Based in classical and contemporary philosophy
2. What is considered good? What I think is best for me is good
3. What is right behavior? Promoting what is good for me only
4. What are the strengths of this theory? Leads to moral certainty and moral autonomy
5. What are some of the weaknesses of this theory? Self-centeredness, moral certainty, selfishness and unrealistic thinking

E. Ethical Relativism
1. Based in classical and contemporary philosophy
2. What is considered good? Only whatever the individual/group/culture decides is right is right
3. What is right behavior? Acting in accord with the group's values and principles
4. What are the strengths of this theory? Tolerance of others, flexible thinking and practicality
5. What are some of the weaknesses of this theory? It rules out criticism of obvious evil and all is considered relative

F. Utilitarianism
1. Based in British/American philosophy: Bentham and Kant
2. What is considered good? Happiness/pleasure, diminishing misery and pain
3. What is right behavior? Promoting the greatest good for the greatest number
4. What are the strengths of this theory? Practical, considers consequences of actions
5. What are some of the weaknesses of this theory? A good end may justify a bad means, it is often a vague theory, and justifies mistreatment of a minority group of people as the means to an end if they do not agree with the majority, it can be dehumanizing

G. Duty Ethics
   1. Based on theories by Kant
   2. What is considered good? Good will that is good-hearted and extended to others
   3. What is right behavior? Doing your moral duty and acting as a model for others to follow
   4. What are the strengths of this theory? Highly principled behavior, consistent and certain, showing respect for self and others
   5. What are some of the weaknesses of this theory? It ignores circumstances and principles and offers no way to choose among competing principles

V. Guidelines for leading a discussion on ethics
   A. The appendix has information on some suggested classroom activities on ethical topics
   B. The key in answering ethical questions is knowing when and where to ask the right questions.
      1. What are the facts of this particular case?
         a. Do I have everything I need to know or am I acting on rumor?
         b. Am I letting bias or emotions distort the facts?
         c. Is this primarily a legal or policy issue instead of an ethical one?
      2. Who is involved?
         a. Who is responsible for causing this issue or problem?
         b. Who is responsible for deciding what to do?
         c. Who will be harmed or helped by the actions taken?
      3. Why have I chosen the ethical action I have?
         a. What values and principles am I basing my decision upon?
   C. Set the tone for the discussion
      1. Everyone who wants to speak may do so
      2. Students will respect each other's diversity of opinion
      3. Students will be polite to each other
      4. Students must back up their opinions with the facts as they see them, not just spout opinions

VI. Ethical issues in teaching
   A. Plagiarism
   B. Falsifying documentation
   C. Cheating or academic dishonesty
   D. Dangerous acts when treating actual patients
   E. Unethical or inappropriate language or behavior with patients, families, and staff
   F. Unacceptable classroom behavior such as violence, threats, harassment, etc

VII. Dealing with ethical issues in teaching
   A. Foster a positive learning environment to minimize behavior problems
   B. Model ethical behavior
      1. Appropriate dress
      2. Appropriate language
      3. Demonstrating concern and respect for others
      4. Commitment to academic excellence and lifelong learning
   C. Publish classroom rules, policies, and expectations
   D. Apply discipline or consequences consistently and fairly
   E. Provide plenty of supervision, mentors, and role models

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Module 6: The Learning Environment

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. State the importance of a positive learning environment
2. List desirable behaviors for students in your classroom setting
3. Identify unacceptable student behaviors
4. Describe methods to engage students in the learning process through a positive learning environment.

Psychomotor Goals

At the completion of this module the student-instructor should be able to:

1. Create a positive learning environment given a group of students in a classroom setting
2. Role-play effective methods of engaging students in the learning process as described in this module

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Appreciate the importance of a positive learning environment and the overall impact that has on the success of a class
2. Act as a role model for the positive behaviors expected in the classroom setting
3. Discourage rude, offensive or distracting behavior and language in students

Declarative

I. Why is this module important?
   - A. A safe or positive learning environment is one in which students and faculty are free from harm, discrimination and teasing; where tolerance and acceptance are present; where new ideas and creative problem solving are encouraged; and where students can ask questions and learn without fear of mental or physical discomfort
   - B. Promote learning with a positive environment
     1. Where practical, involve students in deciding what they will learn as this can help motivate them to want to learn
        a. Example: if you are covering several unrelated topics in class allow them to decide which order the presentation of topics will follow
     2. Give students choices about how material will be covered
        a. Evaluate students learning preferences and styles and integrate activities and learning experiences into their class that target their preferences
     3. Communicate expectations (in writing and verbally) to the students regarding:
        a. Course participation
        b. Grading policy
        c. Attendance
        d. Reading assignments
        e. Grievance procedures
     4. Emphasize the most important material in the curriculum
        a. Use the NHTSA/DOT course objectives, job description, and task analysis to determine what is the most relevant information to cover
        b. Identify from the language of the objectives the level (depth and breadth) the material should be covered
           i. Module 8: Domains of Learning provides more information on the concept of depth and breadth of objectives
     5. Make lectures and activities relevant to the content area
     6. Make additional resources available

7. Design classroom rules to foster learning and discourage negative behavior

C. The value of a positive learning environment
   1. Students learn better and faster when basic needs are met
   2. Require repetition of skills performance, even when the student performs the skill well
      a. Repeat practice on more than one occasion
         i. Reinforces student attainment of the level of mastery required
         ii. Demonstrates student is able to maintain proficiency
   3. Allows students to grow by taking risks in the classroom
      a. Encourage safe experimentation for alternative methods to learn the content of the course
   4. Provide a safe place to make mistakes
      a. Builds confidence
      b. Nurtures students who are experiencing difficulty
      c. Builds leaders by encouraging students to extend their abilities

II. Desirable student behaviors
   A. NHTSA/DOT NSC for EMT-P has an evaluation instrument which is used to evaluate the affective domain
      1. A copy of this document is included in the appendix
   B. Desirable student behaviors or characteristics to reinforce include:
      1. Moral integrity
      2. Strong work ethic
      3. Honesty
      4. Courtesy
      5. Respect
      6. Engaged and active learner (an active participant taking responsibility for their actions)
      7. Knowledgeable
      8. Competent
      9. Values life-long learning
      10. Are there other characteristics?

III. Undesirable student behaviors to discourage (or not reinforce):
      1. The opposite behavior of each characteristic listed above is undesirable and should be discouraged
      2. Lying
      3. Cheating
      4. Stealing
      5. Violence
      6. Intolerance
      7. Prejudice
      8. Carelessness
      9. Unprofessional behavior
      10. Unprofessional appearance

IV. The instructors impact on the learning environment:
   A. Model desirable behaviors
      1. If you want students to value personal protective equipment use it when demonstrating skills
      2. If students are expected to be on time to class do not be late
      3. If you expect a high level of skills proficiency monitor their practice closely and provide timely and constructive feedback
   B. Make time for conferences and meetings outside of class time
   C. Arrive at the classroom early
      1. Set up equipment and arrange room
   D. Be over-prepared for the presentation

1. Review the objectives for the course (or lesson) and compare to Bloom's Taxonomy to determine the depth and breadth required to meet the objective
    a. Refer to Module 8 for more information on the Domains of Learning
    b. Know the information two levels deeper than students need to know it
    c. Because of memory degradation present more information than the objective indicates
2. Have a back-up method of delivering content in case AV resources or equipment fail
    a. Have slides or overheads of the material on video or an alternative topic to cover
    b. Make a commitment that canceling class because of an AV or equipment problem is not an option

E. Ask for help when needed
1. As an entry level instructor you should expect that your employer and supervisor will assist in your growth and development as an instructor
2. Seek out a mentor to guide you
    a. Senior instructor who models quality
    b. Does not have to be an EMS instructor
    c. If an EMS instructor, select someone with high levels of student success
        i. High pass rates and/or low attrition rates

F. Remain current on skills and knowledge
1. Attend workshops
2. Learn about education theory and practices
    a. Do not limit your opportunities to the EMS environment
    b. Consider taking courses at a college or university
3. Join the National Association of EMS Educators and other professional educator groups and organizations
4. Observe other instructors as they present and watch what works and what doesn't

G. Watch your language content and tone of delivery

H. Be honest and frank with students

I. Accept the uniqueness of others and show your students that you appreciate their individuality

V. Maintaining a positive classroom environment

A. Model behaviors expected of students

B. Have rules and enforce them consistently
1. Provide written copies of the rules (via a student handbook) and review in the first class session
    a. Require written verification of receipt and review of rules
    b. Review rules periodically as this is less threatening than confronting a student directly and it may correct minor behavior discrepancies
2. Be consistent in enforcing rules and regulations
    a. Follow them exactly, then dispense flexibility where appropriate
    b. Easier to "lighten up" than "tighten up"
    c. Challenging to start with inconsistency then try to regain control

C. Reinforce positive behavior
1. Sincerely praise students who exceed expectations
    a. Provide explanation so praise is tied to specific behavior, not to "pleasing" the instructor

VI. Use progressive discipline principles in managing conflicts or problems in the classroom

A. Encourage self-policing
1. Can only be accomplished when student knows rules and regulations

B. Identify student leaders to help with problems in the classroom
1. Leaders can help police problem students
2. Monitor closely to ensure that it is a fair application of the rules

C. Document disciplinary actions and provide copies to the student, course director, medical director and other members of the teaching team as appropriate
    1. It is necessary to obtain permission from the student to release information
        a. Obtain written permission in first class session
        b. Give the student a copy of the signed document and place the original in the student's file
D. Seek guidance on disciplinary matters from members of the teaching team: faculty, administrator and medical director

VII. Positive design elements for the physical classroom space
A. A clean, safe, and well-maintained classroom space promotes learning
B. Handicap accessible and in compliance with all federal, state and local access laws
C. Adequate size room for student needs
    1. Appropriate workspace with tables, chairs and desks
        a. Comfortable furniture
    2. Room for practical skills development and practice
    3. Desks arranged so students have an unobstructed view of the instructor and any AV materials that may be used
    4. Secured storage area for personal effects
D. Located close to amenities: food service area, break room, restrooms, kitchen area, etc.
E. Good environmental controls of classroom
    1. Room should have comfortable temperature with good air flow
    2. Adequate lighting
        a. Independent controls for various lighting levels are ideal
        b. Ability to block out natural light
F. Area should be capable of minimizing distractions by closing doors or walling off the space
G. Adequate equipment
    1. Adequate amount in good working order
    2. Appropriate storage
        a. Arranged logically so equipment is easy to find
        b. Safely stored so injuries cannot occur from falling objects or trip hazards
        c. Secure area
    3. Appropriate management and storage for soiled equipment, supplies and biohazard material

VIII. Strategies of arranging the classroom
A. Classroom Arrangement Strategies - illustrates classroom arrangement styles for various settings and needs (see Appendix for Classroom Arrangements)
B. Lecture style
    1. Teacher centered approach
        a. Instructor is positioned in front of students with desks lined up in rows
        b. FYI: student centered approach enables student to be "center" of learning environment
    2. Optimal set-up for situations when students are together to give out information prior to dividing into groups
    3. Not recommended for small group work or psychomotor skills development
    4. May allow students to "hide" behind those in front of them
C. Theater style
    1. Teacher centered approach
    2. Instructor is centered in front of the students but the student's desks are arced in a half-circle around the instructor and may be arranged on terraces or levels (amphitheater)
        a. The instructor can see every student
D. Circle, square or rectangle with open center

1. Combined teacher and student centered approach, depending upon how it is used
2. Chairs or desks arranged in a circle, square or rectangle with an open space in the middle
    a. This allows for the formation of a very large circle
3. Instructor may sit with the group or may enter the center area
4. Ideal set-up when all students are expected to participate as it allows each student to see the other
5. Good set-up for a discussion

E. Circle, square or rectangle with closed center
1. Student centered approach
2. Chairs or desks arranged in a circle, square or rectangle with no open space in the middle
    a. This allows for the formation of a smaller group setting
3. Instructor should sit with group to participate or stand off to the side after providing any instructions
4. Ideal set-up when all students are expected to participate as it allows each student to see the other
5. Good for a discussion group

F. Partial circle, square or rectangle with an open area
1. Combined teacher and student centered approach, depending upon how it is used
    a. Focus is on person centered at the front of group but configuration allows for discussion and interactivity as well
2. Chevron or "U" shape also possible

G. Individual workstations
1. Student centered
2. Some multimedia environments are designed as individual workstations
    a. These areas are difficult to use when a "teacher centered" approach is required as many participants may be unable to see the instructor
    b. You can improve this environment if you provide additional faculty facilitators to circulate around the room assisting students
    c. This is an ideal environment for individual instruction or for groups of 2-3 students to work relatively uninterrupted

H. Group workstations
1. Student centered
    a. Instructor should circulate around the room or have additional instructor facilitators assist in monitoring the work of the individual stations
    b. Focus of instruction is within the space of the individual table or station
2. Tables or workstations oriented within a large open space
    a. Visualization of each station may not be an issue but it can be controlled with partitions or room dividers
    b. Chairs can be placed around the tables or workstations
3. Adequate room should be maintained between stations to allow for movement and to reduce the noise level at the station
4. Groups can be working on the same activity simultaneously (but independently) or different activities
5. Allows for multiple activity stations
    a. Instructor balances between monitoring activity and allowing student to direct their own learning
    b. Student can rotate between stations independent of instructor or as directed
    c. Student can progress around the room in a group or individually, depending upon how the instructor sets up the activity

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Module 7: Learning Styles

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Use his or her own words to define and describe "learning style" and "learning preference"
2. List common learning styles found in adult learners
3. Identify the following characteristics for each learning style:
   - Student needs, desires and preferences in instruction
   - Strengths and weaknesses inherent in that style
4. Explain how learning styles impact classroom dynamics
5. Given a lesson plan, describe activities that may be used to target a specific learning style
6. Identify surveys and other tools used to classify learning styles
7. Describe how his or her own learning style will affect instruction

Psychomotor Goals

At the completion of this module the student-instructor should be able to:

1. Create a lesson plan which utilizes a stimulating variety of teaching techniques, activities and breaks for the purpose of maximizing the various learning styles present in students (this goal should only be attempted if Module 10: Lesson Plans has been completed)

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Value the diversity found in the various learning styles
2. Support the use of learning styles assessment in EMS education
3. Support the use of a variety of teaching styles to reach all learning styles

Declarative

I. Why this module is important
   - A. Classroom teaching is an ongoing experiment into the modes, models and preferences of thinking and processing information by learners
   - B. Maximize success within the classroom by understanding that various learning styles and preferences exist and vary among students
   - C. Incorporate activities that will maximize students preference
   - D. This will make learning more enjoyable for you and the student, but will also make it faster and easier for them to learn the material

II. What is a learning style?
   - A. Throughout this module, the terms "learning style" and "learning preference" will be synonymous
   - B. Each person perceives, processes, stores and retrieves material in a unique way that is individual to their preference and style
     1. Educational researchers, psychologists, and sociologists have observed adults in education settings to identify patterns of learner preferences and determine if there are any commonalties
     2. Learning style theories are the result of research
        - a. A learning style theory will look at only one aspect of the spectrum of learning
          - i. For example, a given theory may describe the manner in which an individual processes material
   - C. Learners have preferences for different types of input and experiences such as:

1. Some prefer structure and others like flexibility
2. Some prefer independence while others like a social or group learning environment
3. Some prefer auditory (hearing) input, others visual (seeing) and still others like kinesthetic (movements) inputs

D. An important point to remember as you progress through this module: adult learners are flexible and adapt to a variety of presentation styles
   1. Although we have inherent preferences we will learn in most every environment
   2. Teaching and learning is more pleasant when our individual preferences are targeted in the methods chosen to present material

III. Assessing students learning styles
   A. Instructors can assess learning preferences via entrance exams and learning style profiles
      1. Health Occupation Basic Entrance Test (HOBET)
      2. Myers-Briggs Personality Type Indicator (MB-PTI)
      3. Learning Styles Inventory (Dunn and Dunn)
      4. Many more instruments exist

IV. Assessing your personal learning style
   A. Instructors should know their own learning preferences
      1. We tend to teach the way we like to learn which may be a disservice to our students
   B. When a misunderstanding arises in the classroom use your knowledge of learning styles to reflect upon how you are presenting material
      1. This may provide clues to the reason there is a misunderstanding

V. Using information on learning styles in your teaching presentations
   A. Provide variety in the classroom
   B. Avoid labeling students by their preferences
      1. You may alter your expectations of students when you label them
   C. Some choices for variety in class sessions and assignments include:
      1. Provide visual stimulation through the use of Powerpoint, video, or overheads or writing on a chalk or white board or flip chart
      2. Provide kinesthetic activities such a model building, use of equipment, and skill labs
      3. Provide group or social activities such as discussion, work groups, and response teams
   D. Knowledge of learning styles and creation of diverse lesson plans helps each student to be comfortable in an optimal learning environment for their learning preference during part of each class session
      1. Diverse lesson plans with lots of variety help students to grow and develop beyond their learning preferences
   E. As learners, we all can adapt to the different learning environments
      1. As an example, reflect on an undesirable classroom experience to see if part of the problem may have been due to the differences in learning styles between the instructor and you

VI. Examples of learning preferences, characteristics and successful teaching techniques to incorporate in to your teaching strategy
   A. These are only three examples of many types of learning styles or preferences
   B. Auditory-visual-kinesthetic preferences
   C. Social and independent learning styles
   D. Analytic and global learning preferences

VII. Auditory-visual-kinesthetic learners
   A. Expresses a preference in the manner in which information is received
   B. Auditory learner
      1. Learns best through hearing information
      2. Benefits from oral presentation of information: discussion, listening, and verbalizing
      3. Encourage students to audiotape lesson
      4. Use lectures, oral presentations and class discussions to stimulate learning
   C. Visual learner
      1. Learns best by taking information in visually
      2. Benefits from visual presentation of information, looking things up, writing things down, and "seeing" the words (forming word pictures in the brain)
      3. Provide handouts of content

4. Use videotapes, slide presentations, overheads, illustrations, posters, X-rays, moulage and other visual props

D. Kinesthetic learner
1. Learns best by manipulating information through physical means through handling and touch
2. Benefits from taking things apart, making things work, using their hands and tactile stimulation
3. Use 3 dimensional models and replicas, laboratory sessions, scenarios and role-play

VIII. Social and independent learning styles
A. Describes preferences in receiving information
B. Social learners
1. Process information best when multi-tasking in busy environments with other people
2. Tend to enjoy study sessions, group projects and cooperative learning
3. Use group work in class, classroom discussions, study groups, skills groups
a. Allow music or other background noise
C. Independent learners
1. Process information best when working independently or isolated
2. Tend to work best in quiet, undisturbed, regular study environments
3. Use reading assignments, written exams, papers and reports

IX. Analytic and global learning theory
A. This theory describes the order in which a learner prefers to process information received by looking at the whole then breaking it down into individual parts or by looking at each individual part and then combining it into a whole
B. Sometimes called right-brain and left-brain
C. Global learner (right-brain)
1. Needs to process the big picture (overall) view first then can concentrate on the individual parts that make up the big picture
2. They are uncomfortable learning when they do not have a sense of the big picture
a. These students appreciate an overview of the material before you start teaching
3. Process information globally and simultaneously, deals in images
4. Tend to be creative, artistic, imaginative, emotional, and intuitive and generally like working on teams
5. Try mental imagery, drawing, maps, metaphors, music and dance, experiential learning
D. Analytic learner (Left-brain)
1. Process information logically, sequentially, in small parts
2. They are uncomfortable with learning that is occurring out of sequence
3. Tend to enjoy spelling, numbers, thinking, reading, analysis and speaking
a. Try lectures with outlines, reading assignments, and multiple-choice exams
E. The differences between analytic and global learners: The forest or the trees?
1. Analytic learners separate the forest from the trees: analytic learners look at every tree in the forest before being comfortable enough to declare that they are in the forest
2. Global learners will walk up to several trees, quickly declare it is a forest, and then will begin to look at the individual trees

X. Theory of multiple intelligence's
A. Howard Gardner described "multiple intelligence's"
1. Gardner's idea was that measuring "IQ" through a series of cognitive exercises does not fully measure the range of intelligences expressed by each individual
a. Hypothesized that each person has aptitude in the following areas, with each individual having some areas with greater aptitude than others
i. Linguistic: enjoys working with the spoken word and languages

ii. Spatial: enjoys visual, artistic imagery, has the ability to construct visual pictures in their mind
iii. Logical-mathematical: enjoys puzzles and problem-solving requiring thought
iv. Musical: enjoys music and understands the language of music
v. Body kinesthetic: has aptitude for sports and recreational activities involving bodily movements
vi. Interpersonal: works well with others and is tuned into those around them
vii. Intra-personal: enjoys self-reflection and introspection, is aware of their body

b. Further work by Gardner and his team has added categories in the area of religious/theological and botanical science

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Module 8: Domains of Learning

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Use his or her own words to state a definition of cognitive, psychomotor and affective domains of learning
2. Identify the domain of learning and level of depth for a correctly written objective
3. Give examples of behaviors that exemplify the three domains of learning
4. Within the context of an EMS call, identify knowledge and behavioral examples for cognitive, psychomotor and affective domains
5. List classroom activities for each domain of learning
6. State at least one appropriate evaluation method for each domain of learning

Psychomotor Goals

1. There are no psychomotor objectives for this module.

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Acknowledge the need to teach within the three domains of learning as identified within the National Standard Curriculum for any level of EMS course
2. Support activities that teach and evaluate the three domains of learning
3. Value all three domains of performance by the EMS professional

Declarative

I. Why this module is important
   A. "Pedagogy" is defined as the art and science of teaching
      1. Teaching is both art and science
      2. The art of teaching involves creative aspects like instructional design, developing classroom presentation skills, etc.
      3. The science of teaching is based in educational psychology and research and deals with learning theories and preferences, how people think, the domains of learning, and other aspects of learning
   B. The Domains of learning are a tool for understanding how people think, feel and act
   C. By understanding the domains of learning we can better plan what needs to be taught and how far we need to go through the material
      1. Also called "depth and breadth"

II. Domains of learning
   A. Developed by Benjamin Bloom, et al, in 1956
      1. His research described the major areas of learning and thinking and classified them into three large groups called the domains of learning:
         a. Cognitive (thinking)
         b. Affective (feeling)
         c. Psychomotor (doing)
      2. Figure 8-III shows the classification strategy for the three domains of learning by the degree of sophistication
         a. The degree of sophistication increases as you extend deeper into the list requiring greater depth and breadth for mastery of that level
   B. The domains of learning are used in instructional design to write goals and objectives for a curriculum
      1. Commonly used in EMS educational products

2. Serve as a means for instructors to decide about depth and breadth issues when developing lesson plans
3. Serve as a means for instructors to develop test questions

III. Levels within the domains of learning
   A. See appendix for Blooms Taxonomy
   B. As the student progresses from one level to the next within a given domain of learning a deeper and fuller understanding of the material is required
   C. Two strategies to classify these levels
      1. Lower and higher levels
         a. This strategy places the levels into two categories
         b. The first level (or first two levels) of each domain is considered the lowest level
            i. Levels beyond this level are considered higher levels
         c. Sometimes this strategy is confusing as there are no clear division points between high level and low level resulting in greater of subjectivity
      2. 3 level system
         a. Groups the levels of each domain into one of three categories: knowledge, application or problem-solving
         b. Knowledge: first (lowest) level
            i. Helps students comprehend facts, procedures and feelings
            ii. Includes simple skills or thought processes like imitation, recall, definitions of terms, receiving and responding to new information
         c. Application: second (some low some high) level
            i. Builds upon the foundation established in the knowledge level
            ii. Involves the integration and execution of principles, procedures and values within specific situations
            iii. Includes precision in the skills execution, the application of principles and valuing feelings and beliefs
         d. Problem solving: third (highest) level
            i. Builds upon the application level and indicates that mastery has been achieved
            ii. Involves the analysis of information, procedures, and feelings in order to modify and adapt specific tasks depending upon situations
            iii. When an individual is at the farthest part of this level they are capable of metacognition (thinking about thinking)
   D. As stated previously, the language of the objective should clue you in to the level of depth and breadth you should cover for the material
   E. The appendix has information on verbs commonly used to describe objectives for each domain of learning
      1. Common cognitive verbs: define, know, describe, design, analyze, discuss, and identify
      2. Common Psychomotor verbs: demonstrate, show, perform, and conduct
      3. Common Affective verbs: defend, appreciate, value, and model
   F. You cannot push students through the levels
      1. They must be allowed to move from level to level on their own or with your guidance
      2. If you push them from one level to the next too quickly they will not learn the material and will make mistakes

IV. The Cognitive Domain
   A. Deals with didactic information; knowledge and facts
   B. Consists of six (6) levels of sophistication from simplest to most complex
      1. Knowledge (Level 1) memorization and recall
      2. Comprehension (Level 1) interpretation and understanding of the meaning behind the information

3. Application (Level 2) application of classroom information to real-life situations and experiences
4. Analysis (Level 3) separation of the whole into parts in order to analyze their meaning and understand their importance
5. Synthesis (Level 3) combining of pieces of information into a new or different whole
6. Evaluation (Level 3) making judgments and decisions about and with the information presented

V. The Psychomotor Domain
   A. Deals with skills, actions and manual manipulation
   B. Consists of five (5) levels from basic to complex
      1. Imitation (Level 1) repeated the example given by instructor or role model
      2. Manipulation (Level 1) practicing and creating his or her own style
      3. Precision (Level 2) performs skill without mistakes
      4. Articulation (Level 3) proficient and competent performance of skill with style or flair.
      5. Naturalization (level 3) mastery level skill performance without cognition
         a. Sometimes referred to as "muscle memory" or automatic

VI. The Affective Domain
   A. Deals with attitudes, beliefs, behaviors, emotions and how much value an individual places on something
   B. Considered the most difficult domain to evaluate
   C. Consists of five levels from simple to complex
      1. Receiving (Level 1) awareness of the value or importance of learning the information and a willingness to learn
      2. Responding (Level 1) willingness to actively participate in the learning process and deriving satisfaction from doing so
      3. Valuing (Level 2) perception that behavior has worth
      4. Organization (Level 3) integration of different beliefs, reconciling differences.
      5. Characterization (Level 3) development of one's own value system that governs one's behavior

VII. Some classroom activities to target each domain
   A. Cognitive-lecture, discussion, reading, diagramming, case studies and drills
   B. Psychomotor-skills practice, scenarios, simulations, and role playing
   C. Affective-modeling behaviors you expect the students to emulate (tolerance, punctuality, respect, kindness, honesty and integrity), role playing situations involving affective domain content, sensitivity training and awareness courses

VIII. Evaluation of the domains of learning
   A. Learning within one domain of learning is often interdependent with another domain
      1. Psychomotor skills development requires cognitive knowledge of the parts, concepts and processes for practice to be most effective
         a. For example: A student will achieve mastery of endotracheal intubation faster if he can identify the needed equipment, understand the indications for the skill, and recite the sequence of events for completion of the skill before he ever attempts the skill
   B. Some educational learning models encourage an environment where students do a high amount of experimenting as a means to learn, but even in these situations the student should be guided and mentored by the instructor
      1. These learning situations are most successful with students who possess a high level of self-directedness (ability to easily motive themselves who have a passion for learning)
   C. Review the course and lesson objectives to determine depth and breadth
      1. Try to teach one level deeper than the objective requires because over time, memory degradation will result in the loss of retention of some of the information

2. Research shows that the more senses that are engaged in the learning process the more material is retained for a longer period of time
    a. We remember about 10% of what we read
    b. About 20% of what we hear
    c. About 30% of what we see
    d. About 40% of what we see and hear
    e. About 70% of what we can describe and talk about (say)
    f. About 90% of what we can say and do
3. Research also shows that the more times material is reviewed and reinforced the more it is retained in long term memory

D. Depth and breadth samples
1. Example 1: Objective A states the student should take a supplied list of names of 10 organs and label those organs on a mannequin and Objective B states the student should draw a human skeleton and label all of the major bones from memory
    a. Objective A deals with a much lower level of cognition (knowledge) than objective B (synthesis) so you should be very thorough on teaching objective B compared to objective A
2. Example 2: Objective C states the student should be able to take an empty oxygen cylinder and switch the regulator to a full tank
    a. If all you have ever discussed or demonstrated is how to open the tank and check it for leaks it is unlikely that your students will be successful in an evaluation of this skill
3. Example 3: Objective D states the student should be able to list the "5 patient medication rights" and you only stressed 3 or 4 of them
    a. It is unlikely that the students will be able to successfully test on this objective unless they are highly self-motivated and learned it on their own through reading, a study group or a tutoring session

E. Cognitive knowledge of a skill does not imply competency in performance of the skills
1. Cognitive knowledge must be integrated with psychomotor skill practice and performance
2. For example: A student who can answer multiple-choice exam questions about the procedure for spinal immobilization is not necessarily able to fully immobilize a patient without compromising the spine

F. Evaluating the affective domain of learning
1. The appendix has a tool that will be useful in evaluating the affective domain
2. This tool comes from the DOT/NHTSA/HRSA EMT-P curricula

IX. Evaluation methods for each domain
A. Module 12 has general information on the concepts of evaluation
B. Modules 16, 17 and 18 contain additional information on the evaluation of each of the domains of learning
C. Cognitive-written examinations, static presentations, and oral examinations
D. Psychomotor-skill competency exam, scenario-based exam, evaluation in clinical or field setting, on-the-job performance
E. Affective-class participation, leadership, peer supervision, role modeling, adherence to policies

X. Most students have a preference or aptitude for one learning domain over another
A. Some students are excellent in the classroom, but struggle with the psychomotor skills of EMS, and vice versa
B. The EMS profession requires use of all three domains
1. Minimum competency in all domains must be achieved for practice as a professional in EMS
2. For example, an EMT must KNOW (cognitive) the indications for oxygen therapy, RECOGNIZE (cognitive) the signs and symptoms of respiratory distress, be able to ASSEMBLE (psychomotor) an oxygen tank and flow the oxygen, and APPRECIATE (affective) the level of distress and anxiety felt by the patient in order to effectively treat the patient

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Module 9: Goals and Objectives

Cognitive Goals

At the completion of this module, the student-instructor should be able to:

1. Use his or her own words to define and describe goal, objective and performance agreement
2. Use his or her own words to identify and describe the ABCD parts of an objective
3. Use his or her own words to describe each of the three domains of learning: cognitive, affective and psychomotor
4. Use his or her own words to describe how to evaluate a planned learning activity (lecture, demonstration, etc.) to determine if there is performance agreement between the planned learning event and the course goals and objectives
5. If Module 8: Domains of Learning has been covered, the student should be able to determine the level (1-3) from the language of the objective based on ABCD elements

Psychomotor Goals

At the completion of this module, the student-instructor should be able to:

1. Take objectives supplied by the instructor and identify the A, B, C, and D components
2. Take incomplete objectives (lacking 1 or 2 of the ABCD components) and rewrite the objective to contain all of the necessary elements
3. Take a goal provided by the instructor and write at least one ABCD objective for each domain of learning
4. Compare goals and objectives provided by the instructor to determine if performance agreement exists

Affective Goals

At the completion of this module, the student-instructor should be able to:

1. Explain why goals and objectives are important to well designed learning
2. Explain how the evaluation of goals and objective for performance agreement enhances quality
3. If Module 8: Domains of Learning has been completed, the student should be able to explain why understanding the three levels within each domain are important in planning and executing instruction

Declarative

I. Why this module is important
   - A. In order for instruction to have meaning, all educational materials should have goals and objectives
     1. Without goals and objectives the instructor would not know what to teach and the student would not know what they are expected to learn
   - B. Entry level instructors may not be asked to write objectives, but they must be able to work with educational curricula that contain objectives
     1. Understanding the basic components of an objective will enable the instructor to determine if they are meeting their teaching goals
   - C. If the instructor writes test questions the objectives will assist in the development of the test
   - D. Objectives can help the instructor determine how much information should be covered on a given topic
     1. You can separate what is "needed to know" from what is "nice to know" and determine the depth and breadth of the material you are presenting
     2. The wording of a well-written objective will show you what level of understanding the student is expected to achieve
        a. Does the student need to master the material or only be familiar with it?
   - E. Instructors must evaluate their classroom performance and objectives serve as the means to measure the effectiveness of teaching activities

II. Module terminology
   - A. Goal

1. Overarching, global statement of expected learning outcome
2. It is usually without any discussion of methods required to accomplish it
    a. An example of goal statements can be found at the beginning of each module separate by domain of learning

B. Objective
1. Statement of expected learning in terms of behaviors students will exhibit
2. An objective should clearly articulate the audience, expected behavior, condition under which that behavior will be performed and the measurement tool or strategy used to determine successful completion of the objective
3. A well written objective should lead to the completion of the goal

C. Performance agreement
1. A process used by both instructional designers and classroom instructors
2. An instructional designer compares objectives and goals to determine if the content to be delivered (as described and defined by the objectives) will meet the goal(s) established for the course
3. The classroom instructor uses performance agreement to ensure that the content found within the lesson plan and the content presented in the classroom match the goals stated for the lesson

III. Basic principles of goals, objectives and performance agreement
A. Mager is credited with the modern concept of educational goals and objectives (1962)
1. The need for goals and objectives to be concrete (solid) measurable statements (with clearly identifiable outcomes) not "fuzzy" or nebulous statements
2. The need for instructional designers to clearly communicate to teachers and students what behavior is expected in order to accomplish a goal

B. Each objective should relate to at least one goal and each goal should be represented by at least one objective

C. Course instructors use performance agreement principles to determine if they are teaching appropriate levels of content (depth and breadth) to their students
1. Pre-presentation evaluation
    a. Compare lesson plan to what is written in the course goals and objectives
2. Post presentation evaluation
    a. Review what was taught to determine if there were omissions
        i. Cover in next class session or provide alternative learning opportunity
    b. Revise and enhance the lesson plan for the future

D. Evaluate your performance through self-reflection, observations by other teaching professionals and through feedback from students

E. You can also review student's performance on tests- but there are a lot of variables affecting testing performance so don't rely on it as the only measure of your success or failure

IV. Common characteristics of goals
A. Goals are global statements of intended learning
1. They may be philosophical in nature (similar to a vision or mission statement)
2. Does not communicate specific information on how to accomplish the goal or how to measure the expected behavior or performance

B. A goal may or may not contain all of the ABCD elements (which are explained later in this module) commonly seen in an objective

C. Example of a goal: The goal of this program is to provide the tools necessary to become an entry-level EMS instructor

D. Also called primary objectives, first level objectives or expected learning outcomes

V. Common characteristics of objectives
A. Objectives are observable and measurable
1. Every objective should articulate an expected behavior that can be observed

2. It should describe how this behavior will be measured (for example when the objective states that a psychomotor skill must be performed to a specific level of competency)

B. Objectives are unambiguous
   1. The objective should be written in clear terminology (avoid jargon and define all terms the first time they are used)
   2. It should be apparent to both the student and instructor what behavior is expected to successfully complete the objective

C. Objectives are results oriented
   1. Objectives are different from goals because objectives describe specific expectations of performance, knowledge acquisition, feelings or attitudes

D. Objectives should be measurable by both quantitative and qualitative criteria
   1. Quantitative (quantity) criteria
      a. Successfully meeting the objective requires that the expected behavior be exhibited under the conditions specified
      b. Both student and teacher should know how that behavior will be measured
      c. Examples of quantitative criteria
         i. The lowest acceptable passing score
         ii. The number of attempts allowed during a skill test
         iii. A time limit imposed on a skill test
   2. Qualitative (quality) criteria
      a. Describes non-numerical observations with the purpose of expressing underlying dimensions or patterns of relationships
      b. Examples of qualitative criteria
         i. Value a concept or idea
         ii. Defend the need to perform a skill
         iii. Adopt a new behavior
   3. A performance level of 100% accuracy on quantitative or qualitative measures is not required for every objective
      a. May have an acceptable level of performance already established that allows the student to "miss" some elements but still pass the evaluation process
         i. Example: an acceptable minimum score for First Responder in a state is 70% so an instructor requires all student to achieve a score of at least 75% on all his quantifiable objectives
      b. May not have a required overall score for an objective
         i. There may be items or steps identified as "critical criteria" that would result in failure if performed
            a. Example: failure to use recommended BSI precautions before performing a skill
         ii. The order the steps of the procedure are performed is as important as the steps
            a. Example: not applying oxygen to your critical patient in a timely manner

E. Objectives should be written in terms of performance
   1. If an objective does not describe or define the expected behavior you cannot evaluate if learning has taken place

F. Objectives should communicate successful learning in behavioral terms
   1. To have meaning, an objective should define the expected behavior change you are looking for to determine that learning has taken place

G. Examples of expected behavior:
   1. Select from an assortment of EMS equipment and supplies those items required to perform spinal immobilization

2. Demonstrate how to perform a database search on the Internet with a topic provided by the instructor
3. State three reasons why it is important to take BSI precautions when providing patient care

VI. The domains of learning
- A. Module 8 provides in depth information on the domains of learning
  1. Even if you have already covered the information in Module 8, this section will provide a comprehensive review and is recommended material
- B. Learning takes many forms and can be categorized or grouped into domains (domains are logical chunks of related elements)
- C. Examples of types of learning:
  1. How we feel emotionally about an issue
  2. Recalling definitions of medical terms
  3. How we relate to each other
  4. Personal values and morals
  5. How we perform skills and procedures
- D. The grouping of these learning elements varies with different educational psychology models
  1. Cognitive, affective and psychomotor domains are used most frequently in the design of EMS instructional materials
     a. Domains of learning are based upon work done by Benjamin Bloom in the 1950s (Bloom called it the Taxonomy of Learning)
- E. Domains are divided into sub-sections that reflect the need for the students to have a deeper level of understanding (and sophistication) as they progress in the domain
  1. See Appendix for Bloom's Taxonomy
  2. The degrees of sophistication that require less depth of knowledge (for example when a student defines words or matches terms with meaning) are referred to as the "lower level or level 1" objectives
  3. Level 2 objectives are an intermediate level between 1 and 3
  4. "Higher level" learning requires students to think critically about a topic, debate it, and understand it in depth
     a. Level 3 objectives are considered the highest level
     b. Some strategies of classification also include level 2 objects in the "higher" level category
        i. What is most critical for the instructor is to recognize that an objective relates to a higher or lower order or process
- F. See appendix for "**Verbs to use when writing objectives**"
  1. Based upon Bloom's taxonomy and separates information into three discrete levels within each domain

VII. Cognitive domain
- A. Emphasizes remembering or reproducing something which has presumably been learned
- B. Deals with what a learner should know about a subject
- C. The three levels within the cognitive level
  1. Level 1: knowledge (or recall), comprehension and application
  2. Level 2: analysis
  3. Level 3: synthesis, and evaluation

VIII. Psychomotor domain
- A. Emphasizes muscular motor skill, manipulation of material and objects, or some act that requires neuromuscular coordination
- B. Concerned with how a learner moves or controls his or her body
- C. The lower levels in this domain will deal with skill performance with assistance or following a demonstration and progresses to "muscle memory," when the performance of the skill is done almost without conscious thought by the student

D. The three levels within the psychomotor level
    1. Level 1: imitation and manipulation
    2. Level 2: precision
    3. Level 3: articulation and naturalization

IX. Affective domain
    A. Composed of two different types of behaviors: reflexive (attitudes) and voluntary reactions and actions (values)
    B. This domain is often difficult to write objectives for and to evaluate if learning (expressed as a measurable change in behavior, value or attitude) has taken place
        1. Perhaps the best "teaching" you can provide to your students in the affective domain is to model the behaviors you want them to adopt
    C. The three levels within the affective domain
        1. Level 1: receiving and responding
        2. Level 2: valuing
        3. Level 3: organizing and characterizing

X. Consider domains of learning when planning lessons and evaluating instructional techniques
    A. Before you teach, review the lesson plan and objectives to determine the depth and breath you must cover the material for that session
    B. After you teach, evaluate if the level taught was adequate for learning to take place
        1. Did it target the level specified in the objectives?
        2. Example 1: Your objectives state that the student should apply the information presented on therapeutic communications by describing how they would react in a scenario
            a. Class time was used to define terms but no time was spent role playing therapeutic communications
            b. The material was not taught to the level the student will be tested
        3. Example 2: Your objective states that the student should match a set of given directional terms to their correct definitions
            a. The instructor taught all the medical terms in the textbook by the Latin word root, suffix, and prefix
            b. Students had an extensive list of medical terminology and the class was several hours behind schedule
            c. In this example the instructor went way beyond what was required by the objectives and threw off the schedule

XI. Goals and objectives in lesson plans
    A. Goals and objectives are often presented in two distinct levels with objectives being subordinate to goals
    B. Goal
        1. The first level identifies the overall goal of the instruction for the program or instructional event
        2. In addition to simply being called a goal, it may also be called a "terminal objective" or "primary goal of instruction"
        3. Goals do not contain specific information on how learning is to be accomplished or measured
        4. Goals are philosophical statements of what learning is intended to produce
        5. The statements found at the beginning of each module in this curricula are goals
    C. Objectives
        1. The objective is subordinate to the goal and should relate to the goal
            a. In completing the objective the student is moving toward meeting the goal
            b. Sometimes these objectives are called "enabling objectives"
            c. Because these are true objectives, they should follow the ABCD format described in this module
    D. Performance agreement

1. Performance agreement is a process of critically evaluating the goals, objectives and course content to force logical relationships to each other
2. Every goal should have at least one objective related to it
3. Every objective should relate to at least one goal
4. The content of the lesson should relate to the goals and objectives
5. There should not be any content that does not relate to goals and objectives
6. When the goals, objectives and content all relate to each other there is performance agreement
7. Methods to evaluate performance agreement are described later in this module

XII. Examples of objectives
- A. Given a standard sentence, the English 101 student should be able to identify the noun and verb without error.
- B. Given an assortment of EMS equipment, the paramedic should be able to identify all of the equipment necessary to perform rapid sequence intubation without error.
- C. The EMT-B participant in this pediatric workshop should be able to identify at least 4 warning signs of possible child abuse from a mock family member's interview that contains 8 warning signs.
- D. From a listing of roles and responsibilities, the First Responder student should be able to identify all those pertinent to a First Responder level provider with at least 70% accuracy.

XIII. Parts of an objective
- A. Many methods, models, and templates are available on writing objectives
  1. An easy to remember generic model utilizes the letters A-B-C-D to indicate the important information to include in an objective
     - a. A= Audience, B= Behavior, C= Condition and D= Degree
     - b. Note that an objective does not have to be written in this order (ABCD) but it should contain all of these elements
  2. Two simple models to follow in writing an objective:
     - a. The (Audience) will (Behavior) in (Condition) circumstance to (Degree) level
     - b. Given (Condition) the (Audience) will (Behavior) to (Degree)

XIV. Audience
- A. Describe the receiver of the instructional activity
- B. Often the audience is identified only in the 1st level of objective (which is usually the goal) or the first objective in the series of objectives for that section
- C. Examples of audience statements
  1. The EMT-B student
  2. The EMT-I refresher course participant
  3. The prehospital care provider attending this seminar

XV. Behavior
- A. Describes learner capability
  1. What the receiver will be expected to do following the instructional event
- B. Must be observable and measurable
- C. If it is a skill, it should be a real world skill
  1. It should relate to current clinical practice
- D. The "behavior" can include demonstration of knowledge or skills in any of the domains of learning: cognitive, psychomotor or affective
- E. Examples of behavior statements:
  1. Should be able to write a report
  2. Should assemble the equipment necessary to perform needle thoracotomy
  3. Defend the need to use reasonable force for self-protection
- F. Terminology may be important here
  1. Wording like "should be able to" or "will be able to" carry different legal expectations and may be an issue to your organization

1. This may only be an issue for someone who is writing objectives ◆ if you are concerned about this, consult with your supervisor or a senior instructor

XVI. Condition
- A. The condition describes any circumstances that will impact upon the behavior the student will exhibit
  1. Equipment or tools that may (or may not) be utilized in completion of the behavior
  2. Environmental conditions or situations (temperature requirements, seasonal conditions, weather impact, swift water, time of day, etc.) may be included as conditions
  3. Time limits may be imposed as a condition for performance
- B. Examples of condition statements
  1. Given an oxygen wrench, regulator and D tank with oxygen
  2. Given the complete works of William Shakespeare
  3. Following the last ventilation given by BMW and within 30 seconds

XVII. Degree
1. States the standard for acceptable performance (time, accuracy, proportion, quality, etc)
2. In the event that the degree statement is not included in the objective you may infer that the acceptable standard for performance is 100%
3. Examples of degree statements
   a. Without error
   b. 9 out of 10 times
   c. Without committing any critical errors

XVIII. Review of ABCD Objectives
- A. Well written objectives will tell you the following:
  1. Who is to exhibit the behavior (target audience)?
  2. What observable performance is the learner to exhibit?
  3. What conditions are provided for the learner at the time of evaluation?
  4. What constitutes a minimum acceptable response?

XIX. Evaluating goals, objectives and content for performance agreement
- A. Compare the content you intend to deliver to the course goals and objectives to determine if the content being delivered actually enables the student to meet the objectives
  1. If you cannot clearly see that the content being delivered meets the objectives then you must modify, enhance or remove content to meet the objectives as stated
- B. You need to determine if you are teaching too much or too little (depth and breadth) or if you are off the topic
  1. Review the verbs in the goals and objectives looking for clues of the level the statement is written to
- C. You should do this before and at the end of each presentation to determine if you are on target
  1. It is much easier to make minor adjustments as you go along than to wait until testing time to evaluate if you taught the material to the right level

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Module 10: Lesson Plans

Cognitive Goals

At the conclusion of this module the student-instructor should be able to:

1. Define a lesson plan
2. Define and describe the following components of a lesson plan:
    - Needs assessment
    - Overall goal of instruction
    - Cognitive objectives
    - Psychomotor objectives
    - Affective objectives
    - Lesson motivation
    - Recommended list of equipment and supplies
    - Recommended schedule
3. List and describe the components of a needs assessment used for preparing a lesson plan
4. List and describe the items to consider when evaluating the intended audience during needs assessment
5. Discuss the methods for determining the depth to which the content will be covered in a prepared lesson plan
6. Discuss the process of aligning objectives of the curriculum with the specific objectives of the lesson plan
7. Discuss how to use a lesson plan to present course content
8. Discuss methods to evaluate the effectiveness of lesson plans:
    - Formative evaluation strategies
    - Summative evaluation strategies
    - Written testing instruments
    - Practical skills demonstrations

Psychomotor Goals

At the conclusion of this module the student-instructor should be able to:

1. Use the information described in this module as a template and evaluate a supplied lesson plan for completeness and accuracy
2. Conduct a needs assessment with a group of EMS students using the parameters discussed in this module
3. Take a goal of instruction and supporting objectives supplied by the instructor and write a brief lesson plan that includes all of the elements presented in this module

Affective Goals

At the conclusion of this module the student-instructor should be able to:

1. Support the use of lesson plans in guiding the planning and presentation of instruction
2. Defend the need to perform a complete and thorough needs assessment prior to the development of a lesson plan

Declarative

I. Why this section is important
   A. Using a lesson plan is an effective method to organize your teaching presentation
      1. Provides a guide to follow when presenting
      2. Assists in the evaluation process
         a. Objectives determine the content of tests
         b. Lesson plans and objectives indicate the depth and breadth to cover the material
   B. An entry level instructor may not be called upon to prepare a lesson plan
      1. Should know the required components of a lesson plan

2. Should be able to evaluate a lesson plan to determine if it is complete

II. Purpose of a lesson plan
   A. To serve as a framework or guide to the instructor while the lesson is being presented
   B. It should assist the instructor in the selection of content to be presented
      1. It should not be used as a substitute for preparation

III. Sources of prepared lesson plans
   A. State EMS office
   B. Senior or mentorinstructors
   C. Publishers
      1. Be careful of bias toward their products or services
   D. Organizations with certification and continuing education courses
   E. National Association of EMS Educators
   F. The DOT/NHTSA/HRSA National Standard Curriculum (NSC) for all levels of EMS are not written as a lesson plans and cannot be used as such
      1. They are used as a source of the goals and objectives that should be taught
   G. Sample outline inAppendix

IV. Needs assessment
   A. A needs assessment is performed before a lesson plan is written
      1. The first part of the instructional design process
      2. A critical component to the development of a successful education presentation and should not be omitted
      3. A good analysis is essential
   B. The anticipated training is evaluated to determine *who, what, where* and *when*

V. Who will attend your course? (Identify your audience)
   A. Determine the demographics of typical and atypical students
   B. Content may affect various communities differently
   C. Age of student
      1. Professional adult
      2. Youth
   D. Race
      1. Diverse cultural background can increase the richness of discussions
      2. Be alert for biases in content
   E. Gender
      1. Be alert for biases in content
   F. Where are they traveling from to the course site?
      1. Is travel distance an issue?
      2. Will weather or traffic patterns impact travel time?
   G. Volunteer vs. career(paid)
      1. Although each group is comprised of professional students, motivations (intrinsic and extrinsic) may be different between a volunteer and a career student
      2. Are they required to be there or do they want to be there?
   H. Learning preferences andstyles
      1. Diagnostic instruments are available to determine student's preferences
      2. Implement teaching strategies that will make learning more meaningful and enjoyable for the students
   I. Educational background
      1. Do students need additional preparation prior to entering the course?
         a. Who is responsible for providing the remedial or developmental education?
   J. Prerequisites
      1. Entrance tests
      2. Education prerequisites: anatomy and physiology, English, and/or math course work

3. Certification level or experience requirements
4. Do they need to show competency or performance verification prior to enrolling?

K. Technology requirements
1. If technology is a component of the course consider the impact of access to technology and user competence that is required

L. EMS experience
1. What is their experience level?
2. Are they doing this to change careers?

M. Other commitments that may detract from student's learning capabilities
1. Family and social
2. Work schedules and responsibilities
a. Shift work
b. Inflexible schedules
c. On call status
3. Time of day the class is offered conflicting with other commitments

VI. What do students need to learn?
A. This is important in discovering motivational strategies
B. Are there job-related requirements?
C. Are there are certification related requirements?
D. Separate the "need to know" from the "nice to know" material
E. Is there a standardized curriculum you can use as a guide?

VII. Where and when will the course be given?
A. Is the environment friendly and inviting to students?
1. Well lit room
2. Designed for the use intended
3. Desirable for studying and learning
4. Comfortable temperature
5. Free of distractions
B. Time frames for each element of the course should be pre-planned but must be flexible

VIII. Other considerations in a needs analysis
A. Is certification or licensure a required outcome of your course
B. Ascertain student needs in regard to professional certification
C. Decide if class meets professional certification requirements
D. If the sponsor of the course is different from the student, what are their expectations for the outcome of the course?

IX. Compile all of the information above and use it to direct instructional design strategies
A. You may not use all of the information
1. It is helpful to know these issues were considered
2. Information learned in this process may result in alternations to your original plan or concept
a. Example: Students in your course will not be available at a certain hour of the day due to other commitments so you must change your proposed schedule to accommodate this and increase attendance
b. Example: Students do not have the background or experience necessary to make them ready for your course but it appears that they can be ready with a few hours of targeted instruction of prerequisite material and you have the budget and means to support this additional training

X. Overall goal of instruction
A. Also called "primary goal of instruction" or "terminal objective"
1. Once you have a clearer understanding of the audience look at what you want/need to teach
2. This will become part of your objective for the course

3. Information on writing objectives is contained in Module 8: Domains of Learning and Module 9: Goals and Objectives

B. The overall goal of instruction should be clearly articulated to the student at the beginning of the educational experience
   1. It should also be supplied to them in written form

C. Your overall goal of instruction is further broken down into measurable pieces of behavior called objectives (or sometimes: enabling objectives)
   1. Entry level instructors may not be called upon to write objectives, however, it is important to understand the concept of objectives and to appreciate what a good objective should contain
   2. Objectives should clearly state what is to be learned and/or accomplished by the student
   3. Objectives are measurable statements of behavior required to demonstrate that learning has occurred
   4. For example, the objectives for a trauma course should be designed to validate that students have learned how to perform a trauma assessment. It would not be appropriate for the objectives of a trauma class to include how to clear a meconium filled airway in a neonate

D. We have discussed three primary types of objectives: cognitive, behavioral and psychomotor
   1. Although there are other types, these are standardized in EMS and allied health education
   2. Refer to the appendix for a recommended list of verbs to use in writing objectives

XI. Cognitive domain objectives
   A. Describe the level of understanding a student should have about the material
   B. Bloom's taxonomy is a helpful list of verbs used to describe expectations
      1. The verbs are grouped according to the depth of understanding required at each level
      2. Example: knowing or comprehending information is a lower cognitive skill than evaluating it
   C. Every lesson has cognitive objectives

XII. Psychomotor domain objectives
   A. Domain for skills performance
      1. Includes gross body movements, fine body movements, speech behaviors and non-verbal communication
   B. Not every module has a psychomotor component because not every module requires you to perform a skill
   C. Typical verbs used to describe psychomotor objectives are demonstrate, apply and perform

XIII. Affective domain objectives
   A. This is one of the most difficult areas to work within because it deals with how students feel about issues
   B. Some educational researchers even believe it is impossible to change emotions, values or feelings or to do it in a measurable way
   C. Some of the verbs used in affective domain objectives include accept, defend, challenge, judge, participate, and support

XIV. Lesson motivation
   A. The lesson plan can provide information to the instructor for motivating students
   B. Intrinsic motivation comes from inside the student
      1. Often comes from the affective domain (feelings and emotions)
      2. May be intensely personal, for example: a student wants to learn this material because he had a loved one who died from a disease you are going to discuss
      3. You can help intrinsically motivate the student by asking him or her to look inside for a reason to learn this
      4. Students with a high "need to achieve" may not require a motivation from you
      5. Education may help them maximize their personal needs (Maslow's hierarchy of needs: see appendix for more information)

C. Extrinsic motivation comes from outside the student
    1. Goal of external motivation strategies is to get students to buy in to the importance of the material so they are willing to learn it
    2. Engage students in discussions about the importance of the topic
    3. Describe how this material fits into the overall scope of the program or course
    4. Coaching students may help motivate them
    5. Ask them to provide reasons why this material is important to learn

XV. Recommended list of equipment and supplies
  A. Include all equipment or supplies needed to present the material
    1. AV projection equipment
    2. Instructional equipment and supplies (flip charts, chalk, etc.)
    3. Medical equipment and supplies
    4. Manikins and models
  B. Use as a resource when preparing to teach
  C. Arrive early to test the equipment and set up the room
  D. Bring spare bulb for AV projection equipment
  E. Have a back up plan in case of equipment failure
  F. Decide what adjuncts will be needed in the classroom e.g., manikins, blankets, vehicles, IV arms, etc.
  G. Have a complete set of working equipment and supplies for each group of students that will reflect what they will have to work with in the field
    1. The behaviors you model may have as great an impact upon the students as what you tell them

XVI. Recommended schedule
  A. Guides the pace of the course
  B. Class size and instructor to student ratios will affect schedule
  C. Physical location of the class will also effect the schedule
  D. Poorly designed rooms, many distractions and poor temperature controls will affect student's concentration
  E. Plan for frequent breaks
    1. Always plan a break within an hour following mealtime
    2. Break for at least 5 minutes each hour
    3. Optimal method is to vary the instruction at least every 20 minutes
      a. Example: a 20 minute video clip followed by a 15 minute in-class exercise (then a 5 minute break) followed by a 20 minute lecture, a 20 minute skills demonstration and another break
    4. Plan breaks at appropriate times so that you don't interrupt momentum

XVII. Determine from the lesson plan how much detail regarding the information needs to be presented
  A. You must decide if the student needs to have an awareness about the material or if they must master it
    1. If you are unsure and have the final exam, reviewing it may help you determine how much material to present
    2. By reviewing Bloom's taxonomy you can determine how detailed the presentation needs to be
      a. The verbs used in the objectives will provide clues
    3. Cognitive domain verbs are placed into 6 groups, starting with the lowest level required and increases to the highest level of understanding of the material
      a. The 6 groups, in order, are knowledge, comprehension, application, analysis, synthesis, and evaluation
    4. Basic level understanding (level one)
      a. Students acquire new information or develop a new skill
      b. This level requires feedback by the instructor

c. Includes objectives that demonstrate knowledge and comprehension

5. Intermediate level understanding (level two)
   a. Students connect the knowledge learned in the basic level with knowledge gained through experience
   b. Includes objectives that demonstrate application
6. Advanced level understanding (level three)
   a. Student◆s function with little or no supervision
   b. Instructor serves more as a facilitator than a teacher
   c. Instructor focuses student towards learning why events occur as opposed to how to perform a skill
   d. Instructor may assume a coaching or mentoring role
   e. Includes objectives that require analysis, synthesis and evaluation

XVIII. Using a lesson plan to present course content
- A. Explain the importance of the curriculum
  1. Begin with a statement listing and explaining the primary instructional goal and objectives
  2. Allow students to give feedback about the objectives
  3. This is especially important when the audience is made up of professionals who have specific and intrinsic needs
- B. Deliver the content
  1. Select methods suitable to student learning styles and consider constraints in the ability to deliver the material
- C. Allow students to practice skills
  1. Document competence
- D. Allow feedback.
- E. Encourage students to interact and contribute
- F. Allow time for remedial education
- G. Evaluate performance of students and lesson plan

XIX. Student tools
- A. Encourage students to take notes
  1. It may be useful to provide students with an outline of the lecturer's notes
  2. Several computerized programs allow instructor's to print a succinct outline of text and or graphics for a given presentation
- B. Interactivity
  1. Allow students to submit questions during and after class time
  2. Encourage appropriate discussions
- C. Encourage students to take responsibility for their learning

XX. Evaluation of the lesson plan and the content delivered
- A. The process of aligning objectives of the curriculum with specific objectives of the lesson plan is called performance agreement
- B. Cumulative lesson objectives should address the course's goals
  1. Lesson plans should build upon previous course goals and objectives
- C. Didactic and practical objectives should be aligned in support of each other
- D. Formative evaluation
  1. You will perform formative evaluation as you write the lesson plan
  2. Compare the overall goal of instruction, lesson objectives and the content
  3. Determine if you have performance agreement between these three elements and make any adjustments necessary
  4. If you are not writing a lesson plan, but are using one that is already written, evaluate the instructional goal, objectives and content to determine if they are complete
  5. Make any necessary adjustments to make sure that there is performance agreement
  6. Review testing instruments to see if they match objectives and content

E. Summative evaluation
   1. Summative evaluation is performed at the completion of the lesson
   2. Use it to determine the effectiveness of your teaching strategy and to improve future performance of the same material
   3. Methods of performing summative evaluation
      a. Survey tools
      b. Test item validation
      c. Comparison of course and program outcomes

XXI. Evaluation tools
   A. See Module 12: Evaluation Techniques for more information
   B. Document student performance using a written evaluation tool
   C. Share results of evaluation in a timely manner
   D. Work out a plan for improvement that the student has participated in designing so they can take ownership and responsibility for their improvement
   E. Written evaluation tools
      1. Tests and quizzes
      2. The objectives should serve as the foundation for any written test
   F. Multiple choice items
      1. National certification and license tests are generally multiple choice
      2. It is difficult to test higher levels of cognition with multiple choice testing
         a. It is very difficult to successfully write test items at these levels
      3. Be aware of the cognitive levels your test questions target – you may need to do other types of testing (for example short answer, fill in the blank or essay questions) to validate the higher cognitive levels
   G. Matching and true false
      1. Similar to multiple choice but removes some of the ability to take a guess as necessary information is omitted from the testing item
      2. Still somewhat difficult to test higher cognitive levels
   H. Fill-in-the-blank, short answer, and essay questions
      1. Typically more difficult and time consuming to grade but will provide a more comprehensive evaluation of the student's mastery of the higher levels
   I. Practical skills evaluation tool
      1. Skills check-off sheet
      2. Incorporate skills in to an overall scenario - allows students to demonstrate their ability to synthesize material into an overall ability to use critical thinking
      3. Can be used to evaluate higher levels of cognition as well as acquisition of psychomotor skills

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Module 11: Presentation Skills

Cognitive Goal

At the completion of this module, the student-instructor should be able to:

1. Describe four different instructional styles
2. Describe the proper use of instructor presence in the classroom setting
3. List types of media available for classroom use
4. List criteria for successful classroom presentations
5. List strategies that can be used to augment classroom presentations

Psychomotor Goal

At the completion of this module, the student-instructor should be able to:

1. Demonstrate a brief presentation in each of the following methods:
    - lecture
    - student centered activity like a role playing scenario, simulation or game
2. Demonstrate how to gauge students response to your presentation

Affective Goal

At the completion of this module, the student-instructor should be able to:

1. Explain how different classroom presentation strategies enhance learning
2. Describe the importance of including varying learning styles in each lesson plan
3. Value the importance of diversity in the types of media used to deliver subject matter

Declarative

I. Why this module is important
   A. The art of teaching often lies in how effectively the teacher is able to present material
   B. The method of presentation will greatly impact upon how successfully the material is learned

II. Common instructional styles
   A. Traditional lecture
      1. Also called face-to-face (F2F)
      2. Classroom setting
      3. Instructor-centered technique
      4. Standardized approach that works well with expert guest lecturers
      5. Tends to be boring and students are easily disengaged
         a. Best for visual and auditory learners
         b. Poor approach for kinesthetic learners
      6. Behaviorist approach
         a. Referred to as the "sage on the stage" because the instructor is the expert who is the center of the learning experience
         b. Roots in Socrates and ancient philosophical methods
   B. Role playing
      1. Student centered learning
      2. Scenarios, case studies, rehearsals and practice drills
      3. Good for all types of students, especially kinesthetic ones
      4. Good for developing psychomotor skills
      5. Good for developing higher order critical thinking skills
      6. May require additional preparation time if the role-play is elaborate
         a. They do not need to be elaborate to be effective
      7. Uses constructivist learning principles
         a. Constructivism: student makes meaning by experiencing things for themselves

8. Students are actively involved in the learning process

C. Collaborative / informal
   1. Student centered learning
   2. Team activities and open dialogue
   3. Good for engaging students but must be monitored closely
   4. More passive learners may let more active learners do all the work.
   5. Uses constructivist learning principles where the instructor guides coaches and mentors the student

D. Progressive
   1. Distance education
      a. Learning is taking place where student and instructor are separated either by time or place
      b. This is not a new method of learning
         i. 1760s first documented case in United States was a correspondence course for learning shorthand
      c. Many forms of distance learning are possible and include a variety of media: print, audiotape, videotape, satellite, technology and multimedia based programs, computer software based programs and Internet based programs

III. Make the presentation
   A. Introduce the subject matter early in the presentation
   B. Introduction should include:
      1. Validity of the instructor's credentials / experience / knowledge
      2. Description of the content
      3. The importance of the material
         a. You may need to provide motivation to the students
         b. Relevance of the material to their work or personal lives
   C. Course outline
      1. Briefly describe the content for the presentation
   D. Requirements for successful completion of the course or lesson
   E. Expected course outcomes
   F. Additional rules and regulations
      1. If you are a guest lecturer inform student of any special information that may be different from their normal routine
      2. When breaks will be scheduled
      3. How students should handle questions: wait until the end or interrupt the presentation

IV. Instructor presence in the classroom
   A. You will develop your presentation style as you become more relaxed in the classroom
   B. Anonymous instructor saying: "Students will not care how much you know until they know how much you care"
      1. If you behave like you do not have any respect or tolerance for the students they will quickly become disrespectful of you
   C. Plan to arrive early
      1. You will appear more organized
      2. Check the room and arrange it so it is inviting
      3. Check the AV equipment
         a. Cue up videotapes, audio tapes and other presentations
      4. Make sure AV wires and cords are not a safety hazard
      5. Set up other equipment you will need
         a. Check batteries in equipment
   D. Greet students as they arrive
      1. Make yourself available for questions or make appointments

2. Take some personal time with each student if possible

V. Appropriate use of barriers when teaching
   A. Many instructors feel more comfortable sitting at a desk or standing behind a podium
   B. Think about where you are in relation to the students
      1. Are you hiding behind objects?
      2. Can the students in the back row see you?
   C. How formal or informal do you appear as you sit or stand?
      1. Do you want to look casual or formal?
   D. How approachable or friendly do you appear by where you are standing?
      1. Generally you want to stand about 8 feet away from your first row of seats
   E. Try to move around the room if you can
      1. Disruptive students are less of a problem if you can move closer to where they are sitting

VI. Speaking in public
   A. Always use appropriate language
   B. Avoid overly familiar terms like "sweetie" or "honey" when addressing students
   C. Do not use obscenities in the classroom, even when amongst your peers
      1. It is unprofessional, offensive and may alienate a student
   D. Speak clearly and distinctly
   E. Use amplification devices where available
   F. Humor may fall flat if used inappropriately
      1. Avoid denigrating other professionals
      2. Never use to denigrate a student or to point out their mistakes
      3. Use sparingly
      4. Related to the subject material
      5. Should not conflict with standard practice or course's core material
      6. Do not reinforce short cuts or other bad practices
      7. The profession of EMS is prone to dark humor as a means of dealing with overwhelming tragedy and as a means of stress relief
         a. Be alert to the mood of your students by observing their humor
         b. Always keep in mind that they will model after your behaviors including your humor
   G. Avoiding jargon
      1. EMS terminology is a fact of our profession, but make sure everyone knows what you are saying by defining all terms at least once during your presentation
      2. Never assume your audience knows the terminology define the terms the first time you use them, if it seems like they understand then you can continue
      3. Catchy and colorful phrases should be used with caution, and should never be used to put down another group or person
   H. Eye contact while speaking
      1. Maintain eye contact with class by moving your eyes around the group
      2. Make sure you do not hold anyone's gaze for too long, as this can be uncomfortable for them
      3. Watch for personal blind spots (places you tend to look all the time) because you can ignore students who are not in your normal vision area
   I. Appearance
      1. Dress appropriately for the environment you are working in
      2. A uniform may be required for both you and the student make sure yours is well cared for
      3. Ask your primary instructor what dress is appropriate
      4. Sportswear is generally appropriate for classroom presentations
         a. Think about what you will be doing that day in class
   J. Be adequately rested
      1. Lack of sleep affects humor, attitude, demeanor, and judgment

K. Respect personal space
    1. Avoid unnecessary physical contact
L. Treat all students the same
    1. Engage students equally and avoid bias
    2. Avoid gender bias in dialogue and practical exercises
    3. Watch your class closely and make sure you advocate for students who are "outsiders" from the group
    4. Avoid picking favorites
    5. Do not pass judgement on students
        a. You can easily decide a student who is sitting with their eyes closed is sleeping, but they may be concentrating on what you are saying
        b. Just because a student appears to be taking notes does not mean they are paying attention- they may be writing a letter or doing something unrelated

VII. Use of audio-visual equipment
A. Preview all AV equipment and resources before use
B. Have a back-up
    1. Classroom may not accommodate use of planned materials
    2. Equipment may fail
C. Writing surfaces
    1. Black board / white board
        a. Commonly available
        b. Usually non-portable
        c. Time consuming to use
    2. Flip charts / poster board
        a. Portable
        b. May be difficult to adhere to wall surface
    3. You must turn away from the student to write on the board
        a. Avoid talking to the writing surface while you are writing on it
D. Overhead projector
    1. Portable
    2. Inexpensive
    3. May require minor repair (bulb)
    4. Allows for colorful display
    5. May be time consuming to use and poor handwriting makes it difficult to read
    6. You may be blocking student's view when you are standing next to the machine to write on it
E. Slide projector
    1. Portable
    2. Inexpensive
    3. May require minor repair (bulb)
    4. Wide range of presentations available
    5. Costly to produce personal slides
F. Digital and computer technology devices
    1. Digital projector
        a. Initial purchase may be expensive.
        b. Resolution needs must be considered with purchasing
            i. Different resolutions offer different quality of images projected
        c. Requires additional computer equipment to interface with it
        d. Compatibility issues when you are a guest lecturer so always take presentation on a disk in addition to on your hard drive
    2. CD (in class and out-of-class)

a. Easily created with a variety of software packages (auto-run and non-auto-run)
b. May be a learning curve to using the software
c. Publishers offer a wide variety of standard presentations

3. DVD (in class and out-of-class)
   a. Expensive to create
   b. Some publishers offer standard presentations
4. Internet (in class and out-of-class)
   a. Requires an Internet connection
   b. Relies on the speed of the Internet connection
      i. Modem
      ii. LAN (Local area network)
   c. Allows display of large multimedia files
   d. Provides students with increased freedom to schedule course work.
5. Audio
   a. Microphone (wireless and wired)
   b. Audiotape and videotape
   c. Cue up to the place you need
   d. Make sure they are appropriate to the setting you will use them in

VIII. Gauging students response to your presentation
- A. Observe students to see if any are having trouble following the presentation
  1. May be embarrassed to speak-up about a disability or problem
- B. If you detect a problem you may be able to move students around (by doing an activity) so that the student with the problem can move closer
  1. This technique also works when you want to separate students who are acting out or not paying attention
- C. Other barriers to learning to be aware of
  1. Non-English speakers (as primary language)
  2. Hearing impaired
  3. Sight impaired
  4. Other disabilities

IX. Designing lesson plans to meet the needs of varying learning styles
- A. Lessons should be designed to incorporate a variety of methods for delivery of subject matter
- B. Students have a variety of learning styles and preferences
- C. Educational psychologies are categorized by describing modes of thinking, processing thoughts and the student's individual preferences in how they learn
- D. Reevaluate lessons periodically to review the effectiveness of teaching styles

X. Lessons should include a variety of methods for augmenting lecture material
- A. Methods include:
  1. Case studies
  2. Scenarios
  3. Simulations
  4. Personal experiences
  5. Games / entertainment
- B. Case studies
  1. Written situation is simplest type
  2. Elaborate multimedia presentation with photos of the patient and participation by the members of the health care team who provided patient care
  3. These may be presented to an individual or group of students
- C. Scenarios
  1. Hands on practice where the students simulate being the practitioner
  2. Scenarios work best with preplanning on the part of the instructor

3. Discuss with the students the ground rules and your expectations
4. Scenarios can also be written down (allowing for short answer responses) or can be done in small groups as discussions

D. Simulations
   1. Use of moulage, victims, and equipment to role-play scenario
   2. Simulations can be observed by the student (like a demonstration) or the student can participate

E. Personal stories of clinical situations
   1. Also called "war stories"
   2. Can help students develop concrete cognitive images of subject matter
   3. Must not allow students to digress into non-purposeful discussion (one-ups-manship)
   4. War stories can sew the seeds for some great discussion opportunities and can be a means to work on critical thinking skills
   5. They should enhance the educational experience, not detract from it

F. Games / Entertainment
   1. Most adult students enjoy playing games, but they should have relevance to the course
   2. They can provide break from the routine and may serve to reenergize the students
   3. Will not be advantageous to some learners

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MODULE 12: Evaluation Techniques

Cognitive goals

At the completion of this module the student-instructor should be able to:

1. Define evaluation, formative evaluation and summative evaluation
2. Distinguish between formal and informal evaluation
3. Identify various types of evaluation, and the advantages and disadvantages of each
4. Understand specific types of test items and the advantages and disadvantages of each
5. Understand general guidelines for test construction
6. Define reliability
7. Define content validity
8. List several examination resources

Psychomotor goals

At the completion of this module, the student-instructor should be able to:

1. Develop two examples of correctly constructed test items for cognitive evaluation in each of the following categories:
    - Multiple choice
    - True/false
    - Matching
    - Completion
    - Essay
2. Develop a skills checklist to evaluate a psychomotor skills performance

Affective goals

At the completion of this module, the student-instructor should be able to:

1. Explain why evaluation is important to the total quality control of an EMS program
2. Explain why formative and summative evaluations are both important in the evaluation process

Declarative

I. Why this module is important
   - A. Without a mechanism to evaluate the student you will never know if you have achieved the objectives and goals of instruction
   - B. The evaluation process helps determine strengths and weaknesses of students and your program
     1. Program evaluations help improve the quality of the instruction
     2. Student evaluations help determine whether students are progressing satisfactorily
     3. Evaluations can also be used to determine if an individual is compatible with the EMS field (by targeting the affective domain)
        a. See the appendix for a sample affective domain evaluation tool
   - C. Entry level EMS instructors may not design and develop test items (questions), but should have familiarity with the concepts of evaluation and how to construct solid test items
     1. Even if using a prepared test bank, you should understand how to determine if these questions are well written and match the objectives of your lesson plan

II. Evaluation
   - A. Process of making a value judgment based on information from one or more sources
   - B. A mechanism of determining student progress toward, or the attainment of, stated cognitive, psychomotor, and affective objectives
   - C. The evaluation process should look at two components
     1. Instruction as provided by the instructor
     2. The performance of the student on course and lesson objectives

III. Purpose of evaluation
  A. Provide feedback to student on progress or performance
  B. Provide student gratification and motivation to succeed
  C. Measure effectiveness of teaching style and content of lesson
  D. Measure effectiveness of the educational program in meeting written goals and objectives
IV. Formative evaluation
  A. Ongoing evaluation of the students and instruction conducted throughout the course
    1. Compare the overall goal of instruction, lesson objectives and the content to the performance by the students
    2. Compare the objectives of the course to the testing strategy
      a. Cognitive component: testing knowledge
      b. Psychomotor component: testing skill performance
      c. Affective component: testing attitudes, beliefs, ethics and morals
  B. Formative evaluation is important in gaining insight early in the program
    1. Use this information to make changes in the program, to provide remediation, or to redirect presentations
  C. Methods of performing formative evaluation during a course or class
    1. Module or section testing within a larger topic area is a form of formative evaluation
    2. "Taking their temperature" is an informal method of obtaining a quick response of student's questions or to clarify content just delivered
      a. Two of the many methods to take their temperature
        i. One minute paper: ask student to write their response to a question then compare their answer to another student's
        ii. The muddiest point: ask students to write any questions they have on note cards and collect prior to a break
          a. After the break begin with a review of the most common questions
    3. Give frequent, short-duration written or practical drills or quizzes
      a. The intent is to provide feedback to both the student and instructor on the progress of the student
V. Summative evaluation
  A. Summative evaluation is performed at the completion of the delivery of a larger section of material, a module or program
  B. Provide feedback to the students of their successful mastery of the content
  C. Determine the effectiveness of teaching strategy and to improve future teaching performance
  D. Methods of performing summative evaluation during a course or class
    1. Survey tools
      a. Gather opinions about various aspects of the course and instruction
    2. Comparison of course and program outcomes
      a. Determine if all goals and objectives were met
    3. Final examinations: practical and written
    4. Test item validation
      a. Determine if questions were valid
      b. Psychometric assessments can be performed to validate tests and questions
        i. This level of evaluation is beyond an entry level EMS instructor
  E. A formative evaluation can also be summative
    1. Depending upon the context in which it is used, a test may represent formative or summative evaluation
      a. For example: a multiple-choice final exam given at the end of a topic will be both formative and summative
        i. It is summative because it represents the end of that topic area
        ii. It is formative because it represents only a part of a course
VI. Formal and informal evaluation

A. Both formal and informal strategies are critical to the success of courses and programs
B. Some of the evaluation strategies listed can be conducted formally or informally
C. Formal evaluation
    1. A structured instrument to assess student's attainment of interim and/or terminal course objectives
    2. A formal written examination can determine a grade for a course or serve as a means to continue in the program
    3. If you review the test and allow students to challenge questions (prove it wrong through the use of textbooks and class notes, etc.) it can serve as a powerful learning tool
    4. Problems with formal evaluation techniques
        a. Place stress on the student (especially the ill-prepared ones)
        b. May not provide a mechanism for remediation or retention when they represent a final summation of learning
D. Informal evaluation
    1. Less structured method of assessing student achievement used primarily to provide corrective feedback to both the student and instructor
    2. Informal evaluation tools may not be graded or the instructor may not record the grades
    3. Student benefit: identify weakness (and strengths) and offer suggestions for improvement; may serve as a "wake-up" call
    4. Instructor benefit: compare results from the class to identify trends and problems and to develop corrective instruction or remediation
    5. If the instructor makes an evaluation informal it may cause conflict when students have the expectation of a formal evaluation
E. Problems with formal evaluation techniques
    1. May not allow for remediation or retraining
F. Problems with informal evaluation techniques
    1. Students may not perceive the value in these instruments because grades are not recorded
        a. Instructors may not wish to spend class time doing informal evaluations
        b. Instructors may not grade or provide the student feedback on informal evaluations further diminishing their importance in the student's eyes

VII. Written examinations
A. Types
    1. Multiple choice
    2. True/false
    3. Matching
    4. Completion
    5. Essay
    6. Terminal/certifying
B. Terminology
    1. Item: common instructional design term for all of the components of a written examination question including the question, correct (or best) answer and incorrect answers
    2. Stem: part of the item that is first offered, it may be written as a question or an incomplete statement, the stem is often called the "question"
    3. Distracter: an answer to a test question that is a false or incorrect answer designed to be a plausible alternative to the correct answer
    4. Key: the correct (or best) answer to the item
C. Source of test items: the course and lesson objectives
    1. Test items should come from the course objectives and lesson plan
        a. If you are testing information you have not directly covered in the class you should ensure students have been directed to this information via reading assignments, projects, or some other form of independent study

D. Advantages of written examinations
   1. Can be used with a large number of students
   2. Measures cognitive objectives
   3. Provides for consistent scoring
   4. Grading and compiling result is quicker than for other types of examinations

E. Disadvantages of written examinations
   1. Time consuming to develop
      a. Difficult to develop adequate measurements for the higher order levels of the domains of learning
   2. Complex validation procedures
   3. Could discriminate against students with reading difficulties
      a. Poorly written items may evaluate a student's reading ability more than they evaluate knowledge of the material
   4. Cannot measure skills performance
      a. Questions can be asked about the procedure to perform, but the actual skill demonstration cannot be evaluated via this type of test

VIII. General guidelines for written test item construction

A. Test must be related to objectives and developed from a blueprint
   1. A blueprint is an outline for the test
      a. Include test items on each objective
      b. Decide the depth and breadth (level) to cover for each item

B. Exam must be an appropriate type
   1. Considering your domain of learning and how far into the domain (high or low level or lever 1, 2 or 3) you want to go
      a. This can help determine the appropriate instrument to use
   2. The following are a partial list of suggestions to follow
      a. Low level cognitive: multiple choice, matching, true/false, simple completion (fill-in-the-blank) or short answer essay, and oral exam
      b. High level cognitive: long and short answer essay, fill-in-the-blank, some true/false and completion, oral exams, projects (case studies for example), and observational reports
      c. Low level psychomotor: rote skills, oral, and observational reports
      d. High level psychomotor: situational scenarios, projects (designing scenarios for example), and observational reports
      e. Low level affective: oral, short-answer essay, projects (opinion papers for example), and observational reports
      f. High level affective: oral and situational scenarios, projects (group designed presentations for example), and observational reports

C. Organize exam in a logical manner
   1. Group like items (similar content area) together on a written exam
   2. Have questions follow a linear or logical sequence in an oral or situational (scenario based) examination

D. If timed, allow an appropriate amount of time to answer questions or perform a skill
   1. Determine if timing the test is appropriate
      a. When preparing for a timed licensure or certification exam
      b. Mirror timing strategy of terminal exam in your preparatory exam
      c. If the goal is for students to think or act quickly
   2. Some suggested timing strategies
      a. One minute per item for a standard multiple-choice test
      b. Allow 2-3 minutes to read a scenario then one minute for each multiple choice question

i. Allow longer time to read a scenario and compose an essay answer
c. Allow longer time to respond to a situational skill than a rote one
d. Allow longer response time for a higher level question (in any domain) than a lower level one

E. Provide clear complete directions about the test
1. Can or cannot write on the test
2. Use a pencil to fill in the answer sheet
3. Time limit
4. Whether or not breaks will be allowed during the test

F. Have another instructor review the examination for clarity and completeness
1. Be sure exam is legible, free of typographical, grammatical, spelling and content errors

G. Be consistent in the design strategies you are using for the graphics (fonts) on a written examination
1. Use all capitals or all lower case letters consistently throughout the test for both the key and distractors, both in the numbering strategy (a, b, c, d or A, B, C, D) and for the first word of the key and distracter
2. Be consistent in the use of punctuation
3. Use a consistent strategy to draw attention to material in the test
a. Be consistent with the use of underline, bold or italics
4. Position key and distractors appropriately
a. Observe for answers that build logically
i. If your answer choices are the letters "a," "b," "c" and "d," place them in that order
ii. Place number answers in ascending or descending order

IX. Specific types of written test items: multiple choice
A. Common method of conducting formal and informal evaluation
B. Written national and state certification and licensing examinations are multiple choice

X. Limitations of multiple choice questions
A. Bias cueing occurs from leading students to the correct answer by the way the stem is worded or from the grammar choices
B. Inadequate stems require students read all of the answer choices before selecting an answer
C. Negatively worded stems should be avoided
1. Students are used to looking for positively worded stems and can be tricked by (or misread) negative ones
D. Questions should not build on previous questions information
1. Exception is in testing the sequencing of steps
E. Avoid questions written with a fill-in-the-blank segment in the middle of the stem
1. Difficult to read and the meaning may be skewed
F. Avoid "all of the above" or "none of the above" as a distracter
1. Recognition of one other incorrect distractor immediately eliminates "all of the above" as a possibility
2. Recognition of a couple distractors as correct (or possibly correct) leads the student to guess that "all of the above" is the correct answer
3. "None of the above" can be an alternative if the question is a mathematical (computational) one
G. When you need to combine answers to obtain a correct answer all of the possible combinations should be used to make up the distracters
1. Questions with only four options result in over fifteen answer combinations making this impractical
2. Overlapping responses are a problem
a. If the question asks for a range and one answer offers a single number it can be immediately eliminated

b. If distracters overlap into the range you are looking for it can be confusing to the student
    i. Example: the correct range is 6-8 and the choices are 2-6, 4-7, 6-7 and 5-9

XI. Specific types of written test items: true/false
  A. Includes a complete statement and a two choice alternative of true or false
  B. Limitations
    1. Item must be limited to the two choices of true or false
      a. Does not allow for any gray area
    2. Difficult to construct good items in a positive voice
      a. Avoid negatively worded statements using "is not", etc.
    3. Avoid extreme answers that include the absolute statements "always" or "never"

XII. Specific types of written test items: matching
  A. Typically two columns of information are offered with the intent of selecting items from one column and matching them to items in the other column to form correct or complete statements
  B. Limitations
    1. Works best with definitions and terms or with simple concepts with obvious relationships
    2. Difficult to properly design
      a. Multiple matches may be possible within the columns
    3. Items used must bear some similarity
      a. Unless you were matching terms with definitions it is useless to match terms like humerus, beta blocker, and inferior because the answers would be obvious
    4. Unclear directions how matching will occur
      a. Explain if students will use each term 1 time or multiple times
      b. Explain if single or multiple answers are needed to complete a match

XIII. Specific types of written test items: completion
  A. Fill-in-the-blank
  B. Statements with part of their information omitted so student must complete the statement
    1. Limitations
      a. Enough information must be included for the student to glean the intent of the statement without leading the student to the answer
      b. Meaning may be unclear and several answers may emerge as correct
      c. The answer space may provide a problem
        i. Gives a hint to the student if a blank line is used for each word of the answer
        ii. A single line may mislead student to think the answer is a single word when it is actually two or three words

XIV. Specific types of written test items: essay
  A. Short answer
    1. Requires a bulleted list of responses or several questions to complete
  B. Long answer
    1. Requires students to provide a lengthy prose style answer
  C. Limitations of both types
    1. May not be effective for measuring the lower levels of the domains of learning
    2. Time consuming and sometimes difficult to grade
      a. Grading can be very subjective
        i. Group grading is an alternative
      b. Scoring can be difficult as you try and assign a point value to the various components of the expected response
        i. Rubrics are helpful tools for grading essay questions because a rubric will describe the criteria for each grade level
          a. Example: For an "A" the student must provide all the correct information and write in complete sentences without committing

any spelling errors and for a "B" the student must provide 80% of the required answer and commit one to three spelling errors

3. Students often write illegibly because of time pressure or may try to add information at the end making the response difficult to follow
4. Some students thought processes do not flow easily a linear progression causing an unfair disadvantage in a timed test
5. Students may include much more information than desired in an attempt to be thorough
6. If students do not understand the question, they may provide a very well thought out, but incorrect, answer
    a. Should you award partial credit for a well-constructed incorrect answer?

XV. Specific types of written test items: terminal/certifying

A. Final summative examination with the intent of granting permission to attempt a licensing or certifying examination
    1. Most often a multiple-choice examination
B. Examination given with the intent of granting a certification or license by a regulating body such as a state or the National Registry of EMTs
    1. Requires successful completion of one or a combination of two or three of these examinations to obtain certification or licensure
        a. Written examination (generally multiple choice)
        b. Oral examination
        c. Practical skills examination

XVI. Post written examination quality review by students

A. Will students be allowed to retain the test?
    1. Advantages
        a. Provides a learning aid for later testing
        b. Provides examples of your style of question writing
    2. Disadvantages
        a. Generally eliminates the test (and maybe all of the questions) from reuse
B. Allow students the opportunity to review the test
    1. Highlights areas of weakness for further study and remediation
    2. Highlights areas of weakness in the presentation of the material
    3. Can help control bias or discrimination concerns when students see what other students missed
    4. Promotes a climate of fairness when students can challenge questions, answers, or the wording of a question
    5. Can be used as a learning aid for both the student and instructor

XVII. Post written examination quality review by faculty

A. Compile the results, including an accounting of incorrect answers
B. If the upper one-third of the group missed a specific item determine the following:
    1. Is the test item keyed correctly?
    2. Is the test item constructed properly?
    3. Is it free from bias, confusion and errors in grammar and spelling etc.?
    4. Was the content covered in class?
        a. If not, were the students directed to it through self-study?
C. If the lower one-third of group missed a specific item:
    1. Which distracters were most attractive? (in other words, were most often selected)
        a. Improve distracters that were not attractive
        b. Consider a distracter well written if it is not selected by the upper-third of the class but it is selected by the lower third

XVIII. Oral examinations

A. Exams in which both questions/instructions and answers are given out loud by a student to an instructor, or group of instructors

B. Advantages
   1. Evaluates "quick thinking" or reactions
   2. Evaluates the student's thought processes
   3. Can be evaluated by multiple listeners simultaneously

C. Disadvantages
   1. Limited number of students may be examined at any one time
   2. Difficult to standardize
   3. Examiner may unintentionally give clues to the examinee
   4. Time-consuming and labor-intensive
   5. Subjective
   6. To be fairly administered, a great deal of attention and concentration is required on the part of both the evaluator and the student
      a. Unexpected distractions can impact upon the test
      b. Instructors may be required to evaluate a large number of candidates with little opportunity for breaks
         i. Leading to uneven evaluations over time
         ii. May also lead to identification of themes or trends with unfair emphasis or focus on those repeated mistakes, i.e., holding successive students accountable for preceding students performances

XIX. Project assignments

A. Advantages
   1. Allows independent completion
      a. May be done during class or outside of class
   2. Evaluates ability to synthesize data
   3. Individual projects for specific learning styles or preferences
      a. Students may select from a group of recommended projects or encouraged to develop their own
      b. Can promote autonomy and independent learning
   4. Allows students to work in groups
      a. They can develop people skills and conflict resolution skills
      b. Students can learn from each other and stronger students may tutor weaker students

B. Disadvantages
   1. Difficult to standardize
   2. Possible plagiarism
   3. If not carefully designed, they may measure only the product excluding the process
      a. Sometimes the process used to produce the product is just as important as the final project
         i. For example, learning how to find resources to use in solving a problem or developing critical thinking skills
      b. If a presentation is required, the grade should not weigh solely on the presentation but should also include the content of the presentation
   4. When group members are not working together it places unfair workloads on the members who are contributing

XX. Observational reports

A. Advantages
   1. Can be used for psychomotor or affective evaluation
   2. Reliability is inherent due to repeated observation
      a. Reliability can be increased by increasing the number of observations

B. Disadvantages
   1. Presence of evaluator may influence student performance

a. Student performs better when being directly observed
b. Instructor/evaluator may misdirect student resulting in the need for retraining

2. Time-consuming and labor-intensive
   a. Frequently a one-on-one experience
3. Developing criteria can be a complex task
4. Experiences may not be available at the time they are required
   a. Student attends a clinical setting and there are no patients

XXI. Practical examinations

A. Two basic types: situational and rote
   1. Situational: demonstration of a skill in the context of a scenario allowing for manipulation of the outcome or procedure by the student
      a. Good for evaluating critical thinking skills as well as skills performance
   2. Rote: demonstration of the steps of performing a skill independent of manipulation of outcomes
      a. Generally follows very specific order of steps

B. Advantages
   1. Most closely approximates actual job performance
   2. Allows observation and evaluation of related behaviors and attitudes
   3. Allows evaluation of psychomotor skills, decision-making abilities and leadership skills

C. Disadvantages
   1. Difficult to standardize
   2. Time-consuming and labor-intensive to prepare and deliver
   3. Limited number of students may be examined at one time
   4. Instructor providing feedback needs to be clear about expected outcome, whether a situational or rote response is required, and should evaluate accordingly

XXII. Practical skills evaluation

A. Rote mechanical skill
   1. Requires simple task analysis
   2. Is the easiest skill examination to administer
   3. May or may not reflect the actual field performance capabilities of the student
      a. Isolated skill performed without "real world" stresses may not adequately evaluate affective and psychomotor domains

B. Situational skills
   1. Evaluates judgment and/or decision-making
   2. Required more elaborate simulations
   3. More difficult to develop and deliver
   4. Is a more accurate predictor of field performance because it asks to student to critically think through a scenario that does not always have an obvious answer

XXIII. Simple skill evaluation

A. Define the skill
B. Determine the degree of expected proficiency
C. Select a representative sampling if all skills in a given area are not evaluated
D. Create a written task analysis of the skill if one does not already exist
E. Develop checklist commensurate with the task analysis
   1. Each step should contain some measurable criteria so all evaluators can agree on criteria of successful completion of each step
   2. Look for established standards (i.e. National Registry Practical Skills Examination Sheets) for guidance
   3. Keep the number of steps to a minimum to reduce errors in evaluation
      a. Allows the evaluator to observe the task as it is performed and complete the evaluation form afterward

XXIV. Performance evaluations
- A. Determine and define expected outcome
  1. Are skills performance or decisions-making process more important in the situation?
  2. How stressful or complicated a situation is the student prepared to handle?
- B. Determine what standards will be used to evaluate the performance
  1. Design the situation to be representative of the desired outcome: realistic environment, realistic patient complaints and injuries, manikins vs. real people
- C. Evaluate the resources needed for testing
  1. The higher the domain level the more realistic the scenario should be
  2. Simulate situation and responses as accurately as possible
- D. List all activities which should be completed in the situation
  1. Prioritize activities and list them in their linear (start-to-finish) sequence
  2. Weigh most important aspects and critical criteria appropriately
  3. Checklist should contain
     a. The minimum number of properly ordered steps necessary to complete the task
     b. Steps which are independently observable and measurable
     c. An outcome consensus understood by each evaluator
  4. Avoid qualification of student performance by the evaluator
     a. During the examination the evaluator should be free to observe the activity and quantify the behavior (check if it was performed or not) and should not be focused on measuring how "much" they performed each step
  5. Assure adequate organization to ensure outcome of a situational-oriented performance evaluation
     a. Provide a skeletal framework for the evaluator to follow
     b. If scenario involves patient care include information so instructor can provide consistent feedback to each student
        i. Example: vital signs for appropriate and inappropriate treatment

XXV. Characteristics of skill/performance evaluations
- A. Objectively measures the performance
  1. By the instrument
  2. By the observer
- B. Replicability
  1. Does the instrument measure similar performances consistently
     a. From one student to another?
     b. From one class to another?
     c. From one location (situation) to another?
- C. Fair standards
  1. Standards are known by student and faculty
  2. Practice with similar instrument during the training session
- D. Realism
  1. Situations, scenarios, and patient information are plausible
  2. Reactions or changes in the patients are realistic given the intervention and treatment
  3. External distractions are realistic
  4. Stress is similar to work environment

XXVI. Reliability
- A. The extent to which an exam is consistent in measuring student performance
- B. Does it measure a behavior or body of knowledge consistently on different occasions?
- C. Does the environment influence consistency?
- D. Do different administrators influence results?
- E. Does it discriminate against groups or individuals?

XXVII. Content validity

A. The extent to which an examination is representative of a defined body of knowledge; the ability of an examination process to measure the knowledge and skills it was intended to measure, in accordance with curriculum objectives
B. Are the sub-tests weighted and distributed properly?
    1. Do they place an over importance on a single test?
        a. Is that your intent?
C. Does it cover a reasonable sample of the knowledge and skill objectives?
D. Is it an accurate predictor of field performance?

XXVIII. Resources for examinations

A. Peer instructors within your organization may be a good source for examinations of all types
B. Formalized instruments from certification and licensing bodies (which may also be validated instruments)
C. Jurisdiction or state EMS office
D. National Registry of EMTs for sample multiple choice items, practical skills, and oral examinations
E. Written examination resources
    1. NREMT
    2. Publishers test banks
    3. EMS textbooks
    4. EMS textbook instructor guides
    5. Textbooks of practice certification examinations
    6. On-line and computer based practice certification tests
    7. EMS Internet sites
F. Practical examination resources
    1. NREMT
    2. NAEMSE
    3. EMS Internet sites
    4. EMS textbooks
    5. EMS continuing education programs
G. Oral examination resources
    1. NREMT
    2. NAEMSE
    3. EMS Internet sites
H. Project assignments
    1. NAEMSE
    2. EMS textbook instructor guides
    3. College or university resources
    4. Learning styles / preferences information with practical application suggestions

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Module 13: Facilitation Techniques

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Use his or her own words to provide a description of facilitated learning
2. Describe why motivating students is an important factor in an environment that promotes facilitated learning
3. Identify classroom arrangements and formats that promote and enhance facilitation techniques
4. Explain why the standard lecturing method does not provide a facilitated learning environment
5. List methods to enhance the lecture method to make it a more facilitated learning experience
6. Explain the role of group work in a facilitated learning environment
7. List tips or methods to facilitate a discussion in the classroom
8. List tips for facilitating a practical (psychomotor) classroom session
9. Describe methods to maintain classroom control when using a facilitated learning environment

Psychomotor Goals

At the completion of this module the student-instructor should be able to:

1. Apply the learning principles described in this module to facilitate a discussion of a small group (three-five participants) of student-instructors
2. Apply the learning principles described in this module to facilitate a psychomotor classroom session

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Value the need for providing a facilitated learning environment for adult students
2. Share techniques described within this module with other instructors to promote facilitated learning principles

Declarative

I. Why this module is important
   - A. Teaching is both an art and science
     1. Teaching science includes learning styles, learning theories and pedagogy
   - B. Development of your presentation style, presence in the classroom and rapport with the students is less easily found in science
     1. Facilitation is one method of reaching students in an effective manner that makes the learning experience more productive and enjoyable

II. What is facilitation?
   - A. The word facilitate means to "make easier"
   - B. It is a method of interacting with students that enhances their learning
     1. A variety of techniques involving coaching, mentoring and positive reinforcement
   - C. Many terms describe the facilitated learning environment including; experiential learning, constructivist learning, and invitational learning
   - D. To be effective at facilitation you need to know and understand your audience

III. Adults as learners
   - A. Adult learning styles are different from children
   - B. Most of us have not experienced excellence in education as adults
     1. When we have no reference point for excellence we rely upon traditional lecture and practical sessions
   - C. Adult learners need to see that professional development and their day-to-day activities are related and relevant
     1. Adults need to "buy-in" to the process
        a. Making the learning meaningful is one method to promote this

D. Adult learners need direct, concrete experiences in which they apply learning in the real world
   1. Activities need to be thought out carefully so they integrate into the total learning experience
E. Adult learning has ego involvement
   1. Professional development must be structured to provide support from peers and to reduce the fear of judgment by others
F. Adult learners need constant feedback
   1. Feedback should include performance evaluation and methods to improve performance
   2. Adults should be allowed input into the feedback process
      a. Discuss the correct answer instead of telling them the correct answer
G. Adult learners need to participate in small group activities during the learning experience to move them through the various levels of the domains of learning
   1. Transfer of learning for adults is not automatic and must be facilitated by the instructor
      a. Transfer of learning refers to the process where adults move what they are learning from the lower domain levels into the higher domain levels
      b. Coaching and other support methods are needed to enhance transference

IV. Characteristics of adult learners
A. Adults are generally autonomous and self-directed
   1. The function best in a student centered environment instead of an instructor centered environment
      a. Lectures are instructor centered
      b. Small group activities are student centered
   2. They need to be free to direct themselves
   3. When teachers act as facilitators this allows the student to retain control, or at least to have a stake in directing their learning
   4. Get student's perspectives about what to cover (cover a topic more or less fully based upon their feedback)
   5. Students who have say in some aspects of the program are more likely to support the process
B. Adults have a foundation of life experiences
   1. Work, family, and previous education all have shaped who they are today
      a. This may enhance or detract from learning
   2. Instructor needs to connect learning to this knowledge/experience base
      a. Engage students by drawing on their experience in class
      b. Relate theories and concepts to the "real world"
C. Adults are goal-oriented
   1. Adults know why they are in the class
      a. Determine if this conflicts with your expectations
   2. They appreciate organization and clearly defined goals and objectives
   3. The instructor should know what each of the student's goals are
D. Adults are relevancy-oriented
   1. Adults want to see the reason they are doing something
      a. Place the learning in context to help motivate them
   2. Learning has to be applicable in order for it to have value
E. Adults are practical
   1. Instructor needs to show students how the content will be useful
   2. Students may only be interested in material they feel is crucial to learn and may not be interested in learning anything else
      a. This may conflict with developing a desire in students for life-long learning
F. Adults need to be shown respect
   1. Recognize the wealth of experience students bring to the classroom

2. Students should be treated as peers
3. Encourage students to share their opinions and experiences

V. Motivating the adult learner
   A. Module 15: Motivation has additional information
   B. One of the keys to being able to facilitate is to be able to motivate students
   C. The following are areas to consider for motivation
      1. Social relationships: to make new friends or meet a need for association or friendship
      2. External expectations: to fulfill the expectations of someone of authority
      3. Social welfare: community service and to serve mankind
      4. Personal enhancement: achieve higher status at work, provide professional advancement, or stay abreast of competitors
      5. Escape/stimulation: to relieve boredom, provide a break from the routine at home or work, or provide contrast to the exacting details of life
      6. Cognitive interest: to learn for the sake of learning, seek knowledge for its own sake, or satisfy a curious mind

VI. Barriers to motivation
   A. Many barriers to motivation are present:
      1. Lack of time
      2. Lack of money
      3. Lack of confidence
      4. Scheduling problems
      5. "Red tape," bureaucracy, or politics
      6. Problems with child care
      7. Problems with transportation
   B. Be aware barriers exist, but also understand those you can do something about in your role as a mentor, guide, and advocate and those you are not responsible for
      1. Can you mitigate any barriers?
      2. Should you mitigate any barriers?
   C. The best way to motivate adult learners is to enhance their reasons for enrolling in the course and decrease barriers

VII. Critical elements of adult learning
   A. Motivation
      1. Set an appropriate stress level: not too high and not too low
      2. Sometimes EMS classes promote higher stress because the student will eventually be responsible for human life
   B. Reinforcement
      1. Reinforcement should be part of the normal routine of your class to maintain consistent positive behavior
      2. Positive reinforcement
         a. Set an appropriate level of difficulty that is not too high or too low
         b. Challenge students
            i. It might be a slightly different level of difficulty for each student
         c. Provide feedback from instructor, peers, and when appropriate, other students
         d. When student is interested in the subject it increases their responsibility for learning
      3. Negative reinforcement
         a. It is best to avoid negative reinforcement
         b. The result of negative reinforcement is extinction of the undesirable behavior
            i. It may also result in alienation of the student
   C. Retention
      1. Students must retain the information from the class in order to benefit from the learning
         a. Information must be retained before it can be transferred

2. The instructor's job is not to lecture ' it is to help students retain information relevant to the course
3. Retention is directly related to initial learning
    a. If the student did not learn the information very well she will not retain it
    b. Retention is effected by the amount of practice that occurs during learning

D. Transference
1. Ability to use the information learned in a new setting
2. Positive transference ' student uses the behavior learned in the course
3. Negative transference ' student does not use the behavior learned or uses it incorrectly
4. Positive transference is the goal
    a. Reach the student in all three domains of learning; cognitive, affective and psychomotor to have the greatest transference occur

VIII. Keys to facilitation
A. Create action in the classroom
1. Avoid lecturing
2. Engage students in learning through activities

B. The classroom layout sets the tone
1. See classroom layout from Module 6: The Learning Environment
2. What layout is best for the desired setting?
    a. Group work: tables and semi-private or secluded workspaces
    b. Interaction between students and instructor: arranged so the focus is taken off of the instructor and placed on the group but still allowing interaction with the instructor

C. Create expectation in students that they will participate in learning
1. This is difficult if students have been conditioned to be passive learners
    a. Be patient and provide guidance and positive reinforcement
        i. As students succeed they will change their expectations
        ii. Some will continue to want to be passive learners despite your best efforts - do not be discouraged, eventually they may participate or other students may influence them to participate

IX. Lecturing does not facilitate facilitation
A. Lecturing is a time honored technique that places the focus on the instructor
1. A method of disseminating a lot of information quickly with a lot of instructor control so it remains a common practice in the classroom

B. Lecturing will never lead to active learning
C. Move beyond simple lectures:
1. Build interest
2. Maximize understanding and retention
3. Involve participants
4. Reinforce what has been presented

D. How to add more interest to the lecture environment
1. Beginning of lecture: lead off with a story of a patient encounter, use an interesting visual aid, present a case study, or ask a test question
2. Maximize understanding and retention by saying less and allowing students to do more
    a. Give students the headlines - reduce lecture to major points
    b. Alter your presentation so you present the highlights in lecture form to the whole class, but place students in small groups for reinforcement activities with several instructors
    c. Add visual appeal to your presentations
    d. Provide a handout with the pertinent points then focus on the practical aspects
3. Involve participants in the presentation

a. Spot challenges and ask about concepts
b. Provide activities spaced throughout the lecture
c. Assign portions of the material to be presented by the students
    i. Allow students adequate time to prepare
    ii. Be prepared to intervene if they present incorrect information

4. Reinforce the lecture
    a. Review the material covered through the use of an activity
    b. Provide an application problem and let the students solve the problem
    c. Participants conducta review
        i. With each other or in groups - you can provide a template to follow
        ii. Play games

X. Group work
A. One of the best methods of ensuring active learning is through group work
1. Form groups quickly - time is precious
2. In some settings, using the same group over and over again is best
    a. In others the groups are better when changed
3. Vary skill levels to even the level of each group

B. Creative ways to choose groups:
1. Randomly: by counting off, using letters, colored stickers, etc.
    a. Allows students some control in the sorting process but also lets it occur randomly
2. Teacher controlled: instructor uses a strategy ahead of time to sort students
    a. Can be effective when you wish to separate students, match students, or set up a group for specific characteristics
3. Student controlled: students select how the groups form, individually or collectively
    a. This option offers less instructor control, but may be effective when you want to solicit more active levels of student participation or to offer them some control

XI. Assigning jobs in the class setting
A. One method of increasing participation is to have students assist in some of the day to day activities of the course
1. Setting up the room or bringing in the equipment
2. Functioning as a "master at arms" and serving a minor disciplinary role, or by controlling when breaks begin and end
3. Serve as recorders and note takers when not actively involved in a scenario or role-playing exercise with the purpose of providing constructive feedback
4. Serve as mentors and coaches when they study together and help each other learn skills

B. Instructor may assign the task (leader, recorder, spokesperson, etc.)
1. Use a creative selection strategy:
    a. Alphabetical
    b. Birth date
    c. Date hired to work for the EMS service (oldest or youngest)
    d. Color lottery (who is wearing the most blue?)
    e. Close your eyes and point to someone
    f. Random # (last 4 digits of phone number)
    g. Sticker (on name tag, chair or handout)

C. Rotate duties equally among the student body to avoid favoritism

XII. Managing groups effectively
A. This strategy works best with teams of four members
1. Peer facilitators may be added to group as a fifth member to help guide and mentor group and to problem solve conflicts

B. Groups work best when they agree upon the ground rules up front
1. Provide the following ground rules as a foundation for the group:

a. Come to class on time every session
b. Cone to class having done the assignment and prepared to discuss it
c. Must notify members of the group ahead of time if class will be missed
d. We willing to share information
e. Respect the views, values and ideas of other members of the group
f. Other rules as agreed upon by the members

C. Groups should rotate roles so everyone stays active
1. Discussion leader: keeps group on track and maintains participation
2. Recorder: records assignments, strategies, unresolved issues, data and convenes group outside of class
3. Reporter: reports to whole class during discussions and writes up final draft of assignments
4. Accuracy coach and timekeeper: checks understanding of the group, finds resources and manages time

D. Using groups in large classes or with inexperienced students
1. Use well defined activities with clearly stated objectives
2. Bring the class together for discussion and/or clarification at frequent intervals
3. Plan both group and individual assignments
4. Look for signs of behavior that undermine group function
5. Use peer facilitator to assist group

XIII. Resolving conflict within groups
A. Level 1: preventing escalation
1. Monitor group for early signs of conflict
2. Intervene immediately
3. Use group evaluations to help control individual student behavior
4. Encourage spontaneous verbal feedback

B. Level 2: empowering students
1. Listen to student concerns
2. Encourage students to resolve conflict
3. Coach students on possible resolution strategies

C. Level 3: resolving conflict
1. Establish ground rules for the discussion
2. Ask each student to present point of view while others listen
3. Ask each student to define ideal outcome
4. Review group ground rules
5. Facilitate discussion of possible outcomes

D. Level 4: instructor intervention
1. Refer to course syllabus
2. Refer to student manual
3. Depending upon the severity of the situation, involve other members of the teaching team

XIV. Facilitating discussions
A. Discussion is one of the best forms of participatory lecturing
B. Effective for:
1. Recertification or refresher classes during a review of concepts
2. Topics involving opinions
3. Getting started or wrapping up a classroom session

C. Tips for facilitating discussion:
1. Get all of the students involved
a. Use small groups discussing the same idea to include all students
b. Inattentive students should be redirected back to the group
c. Move the discussion around the class (use a prop or some other strategy to facilitate this)

2. You don't have to comment on each person's contribution
3. Paraphrase: check your understanding and the students
4. Compliment a good comment and redirect an inaccurate or incorrect statement to the class for correction
5. Elaborate - suggest a new way, even when the student seems to have answered the question correctly
6. Energize - quicken your responses, use appropriate humor, prod students for an answer
7. Disagree (gently)
8. Mediate differences in opinion
    a. Mediation is a balancing act; you are trying to keep the discussion going without interjecting yourself as the authority, which could damage momentum
    b. Encourage students to back up their statements with facts
    c. Remind everyone to respect differing opinions
9. Pull together ideas
10. Summarize what occurred in the discussion group
    a. Provide follow-up information for additional study or reading

XV. Practical (psychomotor) sessions

A. Experiential (or practical) sessions help to make training active
    1. Remember: transference occurs with repeated practice
    2. Examples: role-playing, games, simulations, and problem-solving tasks

B. Tips for practical sessions:
    1. Explain the objectives
    2. Explain the benefits
    3. Divide students into groups
        a. Small enough size so all participate
        b. Students not active in the practice activity are recorders or peer evaluators
    4. Speak slowly when giving directions
        a. Begin with a brief overview of the activity then provide specific information
            i. This meets the learning style preferences of global and analytic learners
        b. If the activity involves new equipment give directions before handing out the equipment or supplies so students concentrate on your directions
            i. An alternative is to let them look over the equipment or setting for a minute before you begin giving your instructions
    5. Demonstrate complicated activities
        a. Best accomplished if done one time for the entire group, including any adjunct faculty, to provide consistency
        b. May require a repetition of the skill or steps once the students begin rotations through stations as a quick review
    6. Set a time limit and inform students of the time limit
    7. Keep the activity moving
    8. Challenge the students
        a. Begin with simple or rote exercises and build towards critical thinking situations
    9. Recap and critique at the end of each session
        a. Allow team leader or person performing the skill to give you their impression of what they did "good" and "bad" first
        b. Allow other student participants to give feedback (partner, peer evaluators, "patients," recorders, etc.)
        c. You provide positive-negative-positive feedback
            i. Positive-negative-positive format: begin with specific positive statements followed by constrictive criticism and end with positive statements

XVI. Facilitating activities take time

A. The objectives can often be met in a lecture format faster than in a facilitated learning format
   1. Remember: students retain more when they practice over and over again
   2. They do not argue with their own results of learning, if they discovered it for themselves - they own it
   3. The goal is to assist students to become professionals who think critically about what they do and move beyond the lower levels of thinking into the higher levels
      a. This cannot be done with passive learning techniques

B. Tips to save time during practical sessions:
   1. Start on time
   2. Give clear instructions one time
   3. Prepare visual information ahead of time
   4. Distribute handouts quickly
   5. Expedite group reporting
   6. Record on flip charts - no repeating of information from group to group
   7. Shorten discussion points - emphasize short answers
   8. Get volunteers rapidly
   9. Quicken the pace to create energy
   10. Come back from group work or breaks promptly

XVII. Classroom control issues with facilitation

A. Instructors can easily lose control in an environment with a high amount of facilitation
   1. Students may perceive that you are "not doing your job" because they are participating more actively in their learning
      a. Students are also more responsible for their learning
      b. Co-workers may also believe this if they do not understand facilitated learning
   2. Ensure students stay on task
      a. Conversations should be monitored to ensure they are on topic
   3. Students having difficulty may give up and quit working before asking for assistance
   4. Offer assistance in finding resources but do not get tricked into doing their work.
      a. The "3 before me" technique works well in helping students become more independent
         i. When they ask for assistance they should be able to inform you of at least three places they looked to find the information first
         ii. If they do not have three (or an appropriate) number of resources direct them to the appropriate resources instead of simply telling them the correct answer

XVIII. Tips for calling participants to order

A. Regardless of what technique you use, start on time - whether students are back or not otherwise you reinforce that it is acceptable to be late
   1. Kitchen timer, watch alarm or laptop timer
   2. Flick light switch on and off
   3. "Now hear this" into the microphone
   4. Create a verbal wave - clap hands or everyone repeats "Time's up"
   5. Play music
   6. Unique sounds - a gavel, a bell, a dinner gong
   7. Designate a time keeper for the breaks who calls students back to the room

XIX. Tips for maintaining order in the group:

A. Group work is not purely freedom

B. Signal nonverbally
   1. Use body language and eye contact to show students you are attentive

C. Bring discussion back to the center when someone strays, argues, or monopolizes the discussion

D. Encourage all students to participate

1. Ask how many people have a response, and then call on someone who has not participated and whose hand is raised
2. Occasionally restrict participation to people who have not spoken

E. Each new comment must build on the previous idea
F. Connect on a personal level
   1. When you know students, they tend to control their behavior better in your presence
G. Change the method you are using
   1. Switch from full class to smaller groups or pairs
H. Ignore small nuisances
I. Discuss negative behaviors in private
J. Do not take personally the difficulties you encounter in the classroom setting
K. Seek support from other faculty members

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Module 14: Communication and Feedback

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Describe the process of active listening
2. State the importance of timely feedback
3. Compare and contrast counseling and evaluation
4. Describe several unique types of questioning that could be used to solicit student responses
5. Explain how body language affects one's verbal communication reception
6. Recognize the need to check for understanding when giving students information
7. State the benefits of honest communication in the education environment

Psychomotor Goals

At the completion of this module the student-instructor should be able to:

1. Demonstrate active listening during a role-play exercise in the classroom
2. Employ the use of the pause when questioning students in a role-play exercise in the classroom
3. Demonstrate the proper use of positive and negative feedback in a counseling scenario
4. Demonstrate the use of questioning techniques to solicit student responses in a mock classroom environment
5. Model body language that is recognized as open, interested and positive

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Support the need for positive communication in the learning environment
2. Encourage open communication in one's classroom
3. Value the need for honesty in academic communications

Declarative

I. Why this module is important
   - A. The ability to communicate well is a key skill for the EMS instructor to possess
     1. It is also a key skill for an EMS provider
   - B. Good communication ability is an aspect of professionalism
   - C. Many problems within the classroom will be caused by, or contain an element of, miscommunication

II. Communication in the classroom
   - A. The instructor should create a positive environment for communication
   - B. We communicate with people when the subject is both positive and negative, during brainstorming and problem solving
   - C. Praise in public and punish in private
     1. Catch people doing things right, and praise them for good behavior
   - D. Feedback
     1. Provide feedback as immediately as possible after the action
     2. Provide feedback about both positive and negative behaviors and performance
     3. Try to begin with positive statements, cover the negative information (via constructive criticism) and then end on a positive note
   - E. Employ active listening
     1. Listen to what another is saying
     2. Listening is a difficult skill to develop, especially when you are engaged in the conversation and are thinking of a response

3. Paraphrase and repeat back what was said to verify your own understanding of the message that you received

F. Check for understanding in the message you send
   1. Ask the receiver to rephrase what you said
   2. Provide more information as needed for clarification

G. Use open body language
   1. Hands and arms relaxed
   2. Comfortable personal space
   3. Give your full attention to speaker
   4. Neutral or positive facial expression

III. Questioning techniques to use in the classroom

A. The "pause"
   1. Ask a question and then wait several seconds for a reply
   2. Used to add emphasis, allow time to process information, or to formulate a response
   3. Helpful when students are not focused on you as they will notice the silence and redirect attention
   4. Allow students an equal amount of time to think (think time) before you begin to answer the question or ask another student to answer
      a. Studies have shown that instructors will allow longer think times for students they believe can actually answer the question

B. Calling on students in class
   1. Checks an individual's level of recall or understanding
   2. Do not always call on the first one with a response
   3. Do not let the fastest replying student dominate the class
   4. Do not single out an individual student
      a. Go around the room in a pattern
      b. Use a prop to pass around with each answer
      c. Work alphabetically through your roster
      d. Draw names or numbers from a hat
   5. Watch the students to determine how comfortable they are with this technique as this may intimidate shy students
      a. If you establish up front when they can expect to be called upon by using one of the techniques listed above they may be less anxious

C. Open ended questions
   1. Invites dialogue and discussion
   2. May be used to evaluate critical thinking

D. Move students into small groups for an initial discussion then ask them to report consensus points to entire group
   1. Make sure you circulate around the room and ensure students stay on task

E. Facilitation and coaching
   1. This can be accomplished through individual or small group work
   2. This is a very intensive method of evaluating students

IV. Counseling students

A. Involve appropriate members of the education team while also assuring confidentiality for the student
   1. Medical director
   2. Your supervisor or employer
   3. Your mentor or an experienced instructor
   4. The student's supervisor or employer

B. Begin with a friendly greeting

C. State the facts of the behavior or performance issue, as they are known to you

D. Allow the student an opportunity explain the situation from their perspective, what he or she was thinking, and reasons for their action
E. Confirm they understand the problem, check that you have all the facts, ask for clarification if needed
F. State and explain rules, regulations, laws, and standards which govern the behavior and any consequences
G. Work together to create a plan of action or intervention
    1. May result in a learning or behavior contract
H. Review what has been covered, discussed and decided
I. Close with a positive and supportive message
J. Document the session in writing
    1. Provide copies to the student and all appropriate stakeholders
    2. Inform the student of the individuals who received this information
    3. Put a copy of the document in the appropriate student or course files per your organization mandates
    4. Always document, even if you consider it a minor infraction, so you have these documents as support if problem continues

V. Use professional ethics in academic communication
    A. Always be honest
    B. Protect confidentiality
    C. Address people directly
    D. Treat people how you want to be treated

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Module 15: Motivation

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Use his or her words to define intrinsic and extrinsic motivation
2. List intrinsic motivators of behavior
3. List extrinsic motivators of behavior
4. Given a description of behavior, identify the motivator for that student's behavior
5. Describe techniques to increase motivation in different types of students
6. Identify techniques to increase self-motivation for instructors

Psychomotor Goals

At the completion of this module the student-instructor should be able to:

1. Create and conduct an activity to identify motivational factors for students in a given class
2. Demonstrate behaviors that motivate students
3. Demonstrate how to create a classroom environment that is motivating to students

Affective Goals

At the completion of this module the student-instructor should be able to:

1. Appreciate students have different motivations for participating in an EMS course
2. Respect an individual's motivator for success
3. Value the need to rejuvenate motivation as an instructor

Declarative

I. Why this module is important
   - A. Motivation is the key to getting students involved and becoming active participants in the education process
   - B. Students who value education are easier to teach
   - C. Instructors must motivate themselves to be the best teacher they can be

II. Method to discover motivation within your students
   - A. Begin each course with an activity to identify the student's primary motivation
     1. Understanding their motivation can help identify the cause of positive and negative classroom behavior
     2. Helps you provide appropriate examples for why a student should do something you ask
     3. Helps you plan activities that build intrinsic motivation

III. Intrinsic motivation
   - A. Comes from within the individual
   - B. Includes:
     1. Desire to help others
     2. Wish to perform community service
     3. Personal growth and development
     4. Drive to succeed
   - C. Some students have a high level of intrinsic motivation
     1. These students may help motivate other students

IV. Extrinsic motivation
   - A. Comes from outside of the individual
   - B. Includes:
     1. Money
     2. Time off of work
     3. Job requirement

V. Activities that help to motivate students
   A. Set high standards for your class and students will rise to meet them
   B. Establish clear and reasonable expectations for student behavior and learning outcomes
   C. Whenever possible, allow students to participate in deciding what they will learn and how it is to be accomplished
   D. Create challenges for students which require use of problem solving skills and create a sense of satisfaction
   E. Utilize past experiences of students and call on their individual expertise
   F. Create a desire to learn by helping students understand how they will use this information or skill
   G. Respect the individual's commitments, preferences, and needs as adult learners
   H. Be positive, encouraging and give praise when it is earned
   I. Avoid embarrassing or humiliating students, especially in front of others

VI. Circumstances which can drain an instructor of motivation
   A. Abusive or rude students
      1. Model exemplary behavior
      2. Establish behavioral expectations verbally and in writing
         a. Have rules and policies clearly defined and written in the student handbook
      3. Gain administration's support for policies before discipline is needed
   B. Boredom
      1. Participate in career development activities such as seminars and committees
      2. Continue life-long learning
      3. Set new personal goals
      4. Change your routine in the classroom - if you are bored chances are the students are too
   C. Lack of support from administration
      1. Participate in campus or department meetings
      2. Seek agreement on issues before they arise
      3. Educate administration on your needs and education philosophies
   D. Budget constraints
      1. Apply for grant funding
      2. Seek sponsorship or donations for goods and services
      3. Barter for in-kind services (teach first aid or CPR in exchange for other services or goods)
      4. Conduct fundraisers
      5. Be creative
         a. Flea markets and discount stores
         b. Recycled equipment and supplies from other programs
         c. Make it yourself
   E. Poor compensation
      1. Negotiate a raise based on industry standards for your position
      2. Seek benefits of value to you in lieu of more money
         a. Conference or workshop attendance
         b. Time-off
      3. Network for other positions
   F. Excessive hours
      1. Value the need for rest and recreation
      2. Get organized
         a. Tasks take less time when you are organized
      3. Use work-study helpers, student aids and volunteers
      4. Take vacation when it is earned

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Module 16: Teaching thinking skills

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Differentiate between learning and knowing
2. List activities that foster thinking skills
3. Define high level thinking
4. Describe how "critical thinking" effects the practice of prehospital medicine
5. Describe the benefits of an active classroom or experiential learning

Psychomotor Goals

There are no psychomotor objectives for this module

Affective Goals

At the completion of this module the student-instructor will be able to:

1. Acknowledge the importance in developing good judgement and thinking skills in students
2. Support activities that encourage high level thinking skills
3. Value the use of scenarios and simulations in the classroom

Declarative

I. Why this module is important
   A. Definition of terms
      1. Learning indicates that a person has been exposed to material, understands the material, and can or could recall the information
      2. Knowledge goes beyond recall and includes information processing, application to other situations, consideration of the meaning, and contrasting with other concepts
      3. Knowledge is clearly superior to learning in EMS because it creates images, ideas and solutions to problems even before the student has encountered the situation in reality
   B. Using the term "critical thinking"
      1. This term is somewhat outdated and some educators consider it inaccurate in reflecting the behavior of problem solving
      2. Better terminology is to use wording that reflects higher levels of thinking skills
         a. Targeting levels of Bloom's taxonomy that deal with mastery of material
         b. Refer to Bloom's taxonomy handout in appendix and Module 8: Domains of Learning and Module 9: Goals and Objectives for more information

II. Simulation and scenarios
   A. Simulations include role-playing of a realistic patient situation in the classroom or other educational environment
   B. Simulations usually require a patient actor, responding crew, bystanders, and a facilitator (instructor) to give patient information that is not readily apparent
   C. Realistic simulations are best but are time consuming
   D. Ways to make simulations more realistic include
      1. Moving outdoors, to the hall, parking lot, bathroom, or other location
      2. Using moulage and makeup
      3. Using background noise
      4. Using props such as pill bottles, medical alert tags, dishes, food wrappers, medical supplies, newspapers, and other domestic products.
      5. Have simulated patients follow a script or role-play in character
   E. Benefits of simulations include using all three domains of learning (cognitive, psychomotor, affective)

F. One of the most effective ways to measure affective domain
    1. Allow students to make mistakes in a "safe" environment
    2. Add to the student's exposure to different types of patients and situations
    3. Help students reason through a problem in real time
    4. Improves communication skills
G. Suggested use of simulations in the classroom
    1. To open the class session, capturing their attention and providing a realistic example to refer to throughout the lecture
    2. At the conclusion of a class session to practice or evaluate their grasp of the material covered
    3. For remediation in clinical or field when a similar call has gone poorly
    4. During full day laboratory sessions which can either be random or by topic such as trauma, pediatrics, medical emergencies or cardiac emergencies, etc.

III. Higher level thinking
A. Higher level thinking is using experience, reflection, reasoning, and communication as a guide to belief or action
B. Begins to move the student into the "metacognitive" level of thinking when considering thought process equally important with thinking
C. Higher level thinking is desirable in EMS because it facilitates good judgment by relying on previously established criteria, is sensitive to the current context, and is self-correcting
D. Effective thinking does the following
    1. Welcomes problematic situations
    2. Uses active inquiry
    3. Tolerates ambiguity
    4. Searches for alternative solutions
    5. Requires reflection
E. Higher level thinking is driven by questions
    1. Allow students to ask questions of you, their classmates, themselves

IV. Facilitating higher level thinking in class
A. Support reading for information recall giving students questions to answer from their reading
B. Begin lessons with case studies or scenarios
C. Have students conduct self-assessments of their performance and decision making skills
D. Call on students who do and do not raise their hands
E. Ask students to summarize passages, your lecture, or comments of other students
F. Ask students to explain or justify their decisions when they are correct and also when they have not made the best choice
G. Encourage students to ask questions in classroom setting

V. Activities that foster thinking skills in class
A. Scenarios and simulations
B. Case studies
C. Discussion
D. Journaling and writing
E. Debates
F. Position papers
G. On-line chat boards or discussion groups
H. Research presentations
I. Oral presentations
J. Current event discussions

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Module 17: Teaching Psychomotor Skills

Cognitive goals

At the completion of this module the student-instructor should be able to:

1. Define psychomotor skills
2. Explain the relationship between cognitive and affective objectives to psychomotor objectives
3. Describe teaching methods appropriate for learning a psychomotor skill
4. Describe classroom activities used to teach and practice psychomotor skills
5. List methods to enhance the experience of psychomotor skill practice in the classroom

Psychomotor goals

At the completion of this module the student-instructor should be able to:

1. Demonstrate proper facilitation technique when demonstrating EMS skills
2. Demonstrate the use of corrective feedback during a skill demonstration
3. Create a skill session lesson plan which maximizes student practice time
4. Create a skill scenario which enhances realism

Affective goals

At the completion of this module the student-instructor should be able to:

1. Acknowledge the need to teach the mechanics of a skill before students can apply higher level thinking about the process
2. Value the need for students to practice until they attain mastery level
3. Model excellence in skill performance

Declarative

I. Why this module is important
   - A. Psychomotor skill development is crucial to good patient care by the EMS provider
     1. Psychomotor skills are used to provide patient care and also to ensure the safety of the members of the team
     2. There are many ways to perform medically acceptable skills behaviors
        - a. Need to know steps of skills performance in order to effectively apply critical thinking skills in situations they will face in the field setting
   - B. Instructors plan their approach to teaching students how to perform skills in order to maximize the student's abilities

II. Understanding the psychomotor domain
   - A. Definitions
     1. The psychomotor domain involves the skills of the EMS profession
     2. Skill, action, muscle movement and manual manipulation

III. Five levels of psychomotor skills
   - A. Imitation
     1. Student repeats what is done by the instructor
     2. "See one, do one"
     3. Avoid modeling wrong behavior because the student will do as you do
     4. Some skills are learned entirely by observation, with no need for formal instruction
   - B. Manipulation
     1. Using guidelines as a basis or foundation for the skill (skill sheets)
     2. May make mistakes
        - a. Making mistakes and thinking through corrective actions is a significant way to learn
     3. Perfect practice makes perfect
        - a. Practice of a skill is not enough, students must perform the skill correctly

4. The student begins to develop his or her own style and techniques
    a. Ensure students are performing medically acceptable behaviors

C. Precision
1. The student has practiced sufficiently to perform skill without mistakes
2. Student generally can only perform the skill in a limited setting
    a. Example: student can splint a broken arm if patient is sitting up but cannot perform with same level of precision if patient is lying down

D. Articulation
1. The student is able to integrate cognitive and affective components with skill performance
    a. Understands why the skill is done a certain way
    b. Knows when the skill is indicated
2. Performs skill proficiently with style
3. Can perform skill in context
    a. Example: student is able to splint broken arm regardless of patient position

E. Naturalization
1. Mastery level skill performance without cognition
2. Also called "muscle memory"
3. Ability to multitask effectively
4. Can perform skill perfectly during scenario, simulation, or actual patient situation

IV. Teaching psychomotor skills

A. Whole-part-whole technique is useful
1. Requires that the skill be demonstrated 3 times as follows:
    a. WHOLE: The instructor demonstrates the entire skill, beginning to end while briefly naming each action or step
    b. PART: The instructor demonstrates the skill again, step-by-step, explaining each part in detail
    c. WHOLE: The instructor demonstrates the entire skill, beginning to end, without interruption and usually without commentary
2. This technique provides an accurate example of the skill done in repetition
    a. If students were not completely focused on the skill demonstration one time there are two other opportunities for them to watch the presentation
3. This technique provides a rationale for how the skill has been performed
    a. Students may or may not be allowed to interject questions as the demonstration is going on, but generally discussion is allowed during the middle, step-by-step "part" demonstration
4. This technique works well for both analytic and global learners
    a. Analytic learners appreciate the step-by-step presentation and global learners appreciate the overview
    b. Module 7: Learning Styles has more information on analytic and global learners

V. Progressing through the psychomotor domain levels of skill acquisition

A. Novice to expert
1. Allow students to progress at their own pace
    a. If you move students too quickly they may not understand what they are doing and will not acquire good thinking skills
2. Although the demonstration may provide information on the performance of the entire skill from start to finish, students should be allowed to learn the individual parts of the skill before pulling it all together and demonstrating the whole skill
3. Students should master individual skills before placing them in context of a scenario or simulation
4. Students should be allowed ample time to practice a skill before being tested
5. The need for constant direct supervision should diminish as practice time and skill level increases

B. From novice to mastery level
    1. Demonstrate the skill to students
    2. Students practice using a skills check sheet
    3. Students memorize the steps of the skill until they can verbalize the sequence without error
    4. Students perform the skill stating each step as they perform it
    5. Students perform the skill while answering questions about their performance
    6. Students perform the skill in context of a scenario or actual patient situation

VI. Providing feedback during psychomotor skill development
  A. Interrupt and correct the wrong behavior in beginners to prevent mastery (muscle memory) of the wrong technique
  B. Practice sessions should end on a correct performance or demonstration of the skill
  C. Allow advanced students to identify and correct their own mistakes under limited supervision
  D. Adult learners need encouragement and positive feedback to reinforce the correct behaviors
    1. Adult learners need good role models of correct technique
      a. Primary instructors, secondary instructors, skills instructors, clinical faculty and preceptors are all important in developing students and these individuals should be carefully selected for suitability to their individual roles
  E. Allow adults to develop their own style of the standard technique after mastery has been achieved
    1. There are numerous ways to do things right
      a. Focus on what is considered medically acceptable behaviors instead of demanding rote performance or parroted skills
      b. Spend time helping students develop high level thinking skills so they can differentiate between options and adequately solve problems

VII. Improving psychomotor skill development during a skills session
  A. Have all necessary equipment set up before session begins
  B. Use realistic and current equipment that is in proper working order
  C. Use standardized skills sheets
  D. Allow ample practice time in class, at breaks and during other times
  E. Always model correct psychomotor skills behavior
  F. Keep students active and involved
  G. Insist students respect equipment and skills
  H. Ensure competence in the individual skills before using scenarios
  I. Adding realism
    1. Place need for skill in context with a real life scenario or simulation
    2. Limit objectives of the scenario to three learning points
      a. As students become more sophisticated using critical thinking skills you can add more dimensions to the scenarios
    3. Make the scenario realistic
    4. Use actual equipment
    5. Consider moulage, props, background noises, etc.

VIII. Maximizing skill session time
  A. Assign students in a skill group to each of the following roles according to the size of group
    1. Evaluator: uses a skill sheet or records steps as they are performed
      a. Videotape and audiotape may also be helpful in creating a record
      b. Allowing several students to critique and provide feedback will illustrate how easy it is for observers to miss steps students may perform
        i. This technique also allows students to improve their own skills performance as they watch the skill being repeated
    2. Information provider: uses a script and supplies information as it is requested
    3. Team leader: primary patient care provider
    4. Partner or assistant: performs care as directed by team leader
    5. Patient: faithfully portrays signs and symptoms according to scenario

6. Bystander #1: acts as a distractor or helper
7. Bystander #2: acts as a distractor or helper

B. Distribute a written scenario to be practiced
   1. Can use real calls to create scenarios
   2. Medical textbook publishing companies have books of scenarios
   3. Most textbooks have scenarios in each chapter
   4. EMS professional organizations websites have scenarios

C. Begin scenario with the reading of the dispatch information

D. Do not interrupt the scenario
   1. Mastery of individual skills should have already been obtained
   2. Can comment on timing and decision making later
   3. Safety compromises may necessitate your intervention, but do not interfere if it is not a clear safety danger

E. Group performance evaluation
   1. Utilize a positive-negative-positive format
      a. Begin with positive statements and general comments
      b. Move into constructive feedback and areas for improvement
      c. End with positive reinforcement
   2. Patient care leader should comment on what he or she did correctly, then what needs improvement
      a. Remember that students are often their greatest critics; encourage them to look for positive aspects of their performance
   3. Assistant critiques the team's performance
   4. Patient comments on how he or she was treated
   5. Bystanders add their observations
   6. Evaluator comments on timing, sequencing, prioritization, and skills performance
   7. Students should rotate through each role then begin another scenario
   8. This method keeps everybody active and involved in the skills practice time

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Module 18: Affective Domain

Cognitive goals

At the completion of this module the student-instructor should be able to:

1. Use his or her own words to provide a definition of the affective domain of learning
2. Give examples of student behaviors that illustrate desired behaviors or changes in behavior in the affective domain
3. Within the context of EMS practice, identify examples of affective domain behaviors
4. List classroom activities that support development of the student's affective domain

Psychomotor goals

There are no psychomotor objectives for this module

Affective goals

At the completion of this module the student-instructor should be able to:

1. Acknowledge the need to teach to the affective domain
2. Support activities that teach and evaluate the affective domain
3. Value the affective domain of performance for the EMS professional

Declarative

I. Why this section is important
   - A. The affective domain deals with personal issues: attitudes, beliefs, behaviors and emotions
     1. Educators believe it is one of the most difficult areas of thinking to influence
     2. Some educators believe that we cannot influence students in this area
   - B. Educators must careful cultivate the ethics and values of our profession while setting aside our personal beliefs and emotions
   - C. Educators must understand the degree of responsibility we accept when we step into the classroom
     1. We have a strong influence on our students
     2. They learn from and model our behaviors

II. Terminology and descriptions of the affective domain
   - A. Definition of affective domain
     1. The development of judgment used to determine how one will act
     2. The area of education and performance concerned with attitudes, beliefs, behaviors and emotions
   - B. Words that describe the affective domain
     1. Defend
     2. Appreciate
     3. Value
     4. Model
     5. Tolerate
     6. Respect

III. Importance of affective domain in EMS education
   - A. The affective domain helps develop professional judgment
     1. Judgment often determines excellence
   - B. Ability determines capability and attitude determines performance
   - C. The affective domain skills often make up the patient's perception of the quality of care received
   - D. Ideal characteristics include:
     1. Kindness
     2. Honesty
     3. Compassion

4. Knowledgeable

IV. Every patient and professional encounter in EMS uses all three domains, including affective
   A. For example:
      1. Appreciating patient's pain level and requesting a morphine order
      2. Respecting patient's modesty and covering him or her with a sheet
      3. Defending or respecting patient's right to refuse care
      4. Modeling responsible behavior given the autonomous setting of prehospital care

V. Levels of understanding within the affective domain
   A. Receiving
      1. Awareness of the information or value you are presenting
      2. Willingness to receive the information
      3. Attention to the information
   B. Responding
      1. A command response involves doing what is asked when required, a recall or regurgitation of the right answer according to what was taught
      2. A willingness response involves doing the right thing the right way when asked or when given other choices
      3. Satisfaction in response is when the student voluntarily does what is right and feels satisfaction
   C. Valuing
      1. Acceptance of a value shows that the student is aware that the behavior has worth
      2. A preference for a value shows that the student selects this behavior over others when given a choice
      3. A commitment to a value means that the student always behaves this way and can defend or encourage this value in others
   D. Organization
      1. The integration of different beliefs based on experience
      2. Good judgment comes from experience
         a. Experience often develops out of bad judgment or poor decisions
   E. Characterization
      1. Behavior patterns are so ingrained that they are part of the student's lifestyle
      2. Consistency means that given a number of situations involving the same value, the reaction will be automatic, consistent, and defensible
      3. Characterization is when the person is so closely associated with the value that people may use the name of that value to describe the person

VI. The affective domain in the EMS classroom
   A. See appendix for an affective domain evaluation tool
   B. Instructors are role models
      1. Provide mentors for students
      2. Be aware constantly of being observed by students
   C. Choose adjunct, skills and clinical instructors carefully to be sure they model good values
   D. Model values that you want your students to emulate
      1. Fairness
      2. Compassion
      3. Honesty
      4. Punctuality
      5. Dependability
      6. Preparedness
      7. Competence
      8. Professionalism
      9. Pride

E. Use presentation styles appropriate to the domain
   1. Case study
   2. Audio tapes of 911 call
   3. Discussion
   4. Debate
   5. Role-play
   6. Scenario

F. Present to students the relevance of this information and allow them to attach the value
   1. Give examples of when the value was clearly right
   2. Give examples of when the value improved patient care
   3. Give examples of when the value improved someone's career
   4. Use both EMS and real-life examples the student can relate to
   5. Use case studies that are appropriate to the field and will be encountered in their professional career
   6. Insist students meet the affective objectives of the curriculum

G. Establish classroom policies that support the affective objectives

H. Include affective objectives in assessment and grading criteria

I. Correct behaviors that do not model values during simulations and role play

J. Assign students mentors and clinical faculty who also value the affective domain

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Module 19: Discipline

Cognitive Goals

At the completion of this module the student-instructor should be able to:

1. Identify unacceptable classroom behaviors
2. Articulate the cost and consequences of uncontrolled classroom environments
3. Discuss possible causes of behavior problems
4. Describe three strategies for preventing unacceptable behavior
5. Describe how to create a progressive discipline policy within institutional guidelines
6. Given a behavior problem scenario describe an appropriate disciplinary action for the situation

Psychomotor goals

At the completion of this module the student-instructor should be able to:

1. Role play a scenario involving a discipline problem by modeling the steps of progressive discipline described in this module

Affective goals

At the completion of this module the student-instructor should be able to:

1. Appreciate the underlying causes of behavior problems
2. Respect the student's dignity when delivering discipline
3. Value the need to apply discipline in a safe, fair and consistent manner

Declarative

I. Why this module is important
   - A. Unacceptable classroom behaviors disrupt the learning process and may pose physical danger to the instructor or students
   - B. Instructors and training institutions may have legal liability in providing an appropriate classroom environment
   - C. Depending upon the infraction, disruptive students may still have legal rights and it is important for instructors to learn how to appropriately handle classroom and student problems

II. Unacceptable classroom behaviors
   - A. May be grouped into those behaviors that are considered illegal (criminal or tort) and uncomfortable (disruptive or undesirable but not clearly criminal or tort)
   - B. Illegal behaviors
     1. Violence
     2. Threats of violence
     3. Sexual harassment
     4. Hazing
     5. Discrimination
     6. Destruction of property
   - C. Uncomfortable behaviors
     1. Foul language
     2. Loud voices
     3. Angry tone
     4. Sleeping
     5. Non-participation

III. Cost of uncontrolled classrooms
   - A. Behavior management is the leading cause of career stress for teachers
   - B. Behavior management issues are the most common reason teachers leave the profession
   - C. Classroom management affects how others perceive our competence as an instructor

1. Students
2. Parents
3. Colleagues
4. Administrators (fire chief, operations manager, Dean)

D. An uncontrolled classroom limits our time to teach and learn
E. An uncontrolled classroom leads to an unsafe and negative learning environment

IV. Some possible causes of behavior problems
A. The following are causes of behavior problems:
1. Poor parenting
2. Lack of societal values
3. Anonymity in large schools and departments
4. Boredom
5. Substance abuse
6. Economic situations
7. Lack of recognition for an otherwise high achiever
8. Family stress
9. Poor coping skills
10. Poor communication skills
11. Lack of social skills
12. Weak institutional policies and penalties

V. Correlations between behavior and cause
A. If you are annoyed, the student is probably seeking attention
B. If you feel threatened, the student is probably seeking power
C. If you feel hurt, the student is probably seeking revenge
D. If you are powerless, the student is probably seeking adequacy

VI. Examples of correlations
A. Seeking attention
1. Calling out
2. Asking irrelevant questions
3. Giving excessive examples
B. Seeking power
1. Tantrum-like behavior
2. Arguing
3. Lying
4. Refusing to follow directions
C. Seeking revenge
1. Cruelty to others
2. Trying to get punished
3. Daring you to punish
4. Pranks
5. Vandalism
D. Feeling inadequate
1. Passively refusing to participate
2. Sitting silently
3. Not answering when called on
4. Asking not to be included

VII. Creating positive behavioral changes
A. Prevention and pre-planning
1. Have rules in writing that tell students what is expected
a. Include rules in the student manual
b. Be sure your rules do not contradict other rules (facility, program, state, etc.)

2. Submit your plan to administration for approval to ensure you have their support when you need to enact the final phases of discipline
3. List all consequences, from mild penalties to removal from the classroom or program
4. Share this information with the students in the beginning of the course or program and revisit it periodically if problems arise
    a. Via a student manual, syllabus, code of conduct document, etc.
    b. Require students sign documentation of receipt
        i. Give student a copy
        ii. Maintain original document in student's file
5. Include information on grievances
    a. Students need to understand their rights as well as their responsibilities

B. Steps to take in the classroom
1. Begin with strict (and fair) rules and regulations
    a. It is easier to lighten up than tighten up
2. Do not allow yourself to be intimidated by students and avoid disciplining them as a result of that intimidation
3. Watch for opportunities to reward good behavior
4. Utilize class leaders for peer policing of unacceptable behavior
5. Be a good role model of courteous and respectful behavior
6. Be organized and prepared for each class to minimize distractions and waiting time
7. See the humor in situations and laugh sometimes
8. Do not plead with students to behave
9. If the behavior is out of the normal character of an established class
    a. Intervene immediately - take a break, change topics, stop instruction and address the issue, etc. The situation may dictate the appropriate action to take
        i. Try to identify what is causing the behavior before acting to correct it
        ii. Gather facts before jumping to conclusions about the incident

VIII. Delivering discipline
A. Consistently enforce rules by moving through the consequences in progression
B. Seek assistance from other members of the education team
1. Program administrator or coordinator
2. Medical director
3. Other faculty: clinical, primary and secondary instructors
4. Consult with your mentor

C. Utilize the principles of progressive discipline
1. Start with mild punishment and if needed, continue to removal of the student from the class or program
    a. Certain situations involving illegal activity or threatening safety of others necessitate immediate removal from classroom setting
2. Actions to take might include a reminder, verbal reprimand, counseling session, removal of privileges, written warning, suspension and then termination
3. Respect a student's right to due process
    a. Legal representation and to present an alternate perspective
4. Discipline in private
    a. Individuals being disciplined still have a right to privacy
5. Document all infractions to establish a pattern
    a. Time and date
    b. Any appropriate witnesses (fellow faculty members)
    c. Description of the incident or events
    d. Unacceptable behavior
    e. Corrective action taken

f. Provide documentation to the student and inform them who will receive copies of this information
    i. Full disclosure is the fairest method and may be enough to stop the behavioral problem
    ii. Protect the privacy of the individual involved

6. Attempt to discover the cause of the behavior problem to address the real issue, not just focusing on the symptoms
7. When appropriate, utilize services to address the cause of the problem:
    a. Employee Assistance Program
    b. Counselor
    c. Physician
    d. Tutor
    e. Student health services

IX. Behavior management involves all members of the education team
- A. Administrator
- B. Medical director
- C. Primary instructor
- D. Secondary instructor
- E. Adjunct faculty
- F. Clinical instructor
- G. Preceptor
- H. Support staff
- I. The student's supervisor or employer (in an on-the-job-training setting)

Module 20: Remediation

Cognitive goals

At the completion of this module the student-instructor should be able to:

1. Use his or her own words to define and describe remediation
2. Describe the steps of the remediation process
3. Describe the critical components to include when performing an assessment of a problem requiring remediation
4. List skills critical to student learning success

Psychomotor goals

At the completion of this module the student-instructor should be able to:

1. Role play a front end assessment to identify and explore the causes of a problem requiring remediation

Affective goals

At the completion of this module the student-instructor should be able to:

1. Value the need to assist student in becoming independent self-directed learners

Declarative

I. Why this module is important
   - A. Remediation is needed when students do not perform as expected in any of the three domains of learning
   - B. Students need learning strategies and skills for success in educational situations
     1. Instructors can assist students in developing these skills
   - C. Instructors need a systematic plan to determine what the problem is that is associated with the need for remediation

II. What is remediation?
   - A. A deliberate educational activity designed to correct deficits identified during formal and informal evaluations
   - B. What causes the need for remediation?
     1. Failure of a student to perform as expected on cognitive, affective or psychomotor content
   - C. Remediation process follows a systematic plan
     1. Identify the problem
        - a. Evaluate possible causes for the problem
        - b. Identify where the deficits came from: student or educational program
     2. Retrain the student
     3. Re-evaluate the student

III. Critical skills for student success
   - A. Students need cognitive, metacognitive and motivational skills to adequately problem solve
   - B. Strategies that lead to successful learning
     1. Interest and motivation
     2. Self-efficacy and self-management
     3. Adequate knowledge base
     4. Cognitive monitoring
     5. Attribution
   - C. Interest and motivation
     1. Intrinsic motivation from within
     2. Extrinsic motivation from without
     3. Instructor should monitor for intrinsic and extrinsic motivators
        - a. Help students identify intrinsic motivators and recognize their value

b. Provide extrinsic motivators to student

D. Self-efficacy and selfmanagement
   1. Encourage students towards independent learning by providing collaborative and self-directed learning opportunities in the classroom
   2. Contextual control
      a. Provide students with control of their learning whenever possible

E. Adequate knowledge base
   1. Students should work through each level of sophistication with each domain of learning to move towards metacognitive strategies
      a. Instructor role:
         i. Provide learning opportunities to best facilitate this
         ii. Encourage independent and self-directed learning
   2. Metacognition: active monitoring, self-regulation and reflection of personal mental activities
      a. Metacognition helps learner:
         i. Analyze their own comprehension and needs
         ii. Use instructional components according to analyzed needs
         iii. Find hints for correct solutions to problems
         iv. Actively problem solve
         v. Transfer concepts to other contexts to further learning

F. Cognitive monitoring
   1. Students need to be active readers, writers, planners and listeners
      a. Instructors can facilitate the development of any skills that are lacking or inadequate
   2. Provide study strategies
      a. Plan and organize study time
      b. Steps to start and complete complex assignments
      c. Previewing resources and identifying important topics
      d. Comprehension of material
      e. Use of mnemonics and other memory strategies
      f. Highlighting and note taking
      g. Active listening during lectures and discussions
      h. Preparing for exams
   3. Utilize a strategic process to facilitate learning
      a. Strategic process goals
         i. Regulate strategies used to develop self
            a. Understand personal learning style and preferences
            b. Observe strategies that enhance success
         ii. Keep performance records
            a. For reflection and review of progress
         iii. Evaluate progress
            a. Reflect upon successes
            b. Redirect as needed

G. Attribution
   1. What does student attribute as the cause for failure?
      a. Attribution plays a very important role in whether or not the student accepts responsibility for learning
         i. Does the student think or feel they are a victim of circumstances?
         ii. Does the student blame the instructor or program for their failure?
   2. What does instructor attribute as the cause for failure?
      a. Insufficient instruction
         i. Correct with better designed strategies that target student learning styles and facilitate self-directed learning

b. Low expenditure of effort by student
    i. Determine if student is willing to spend additional energy to learn
    ii. Provide extrinsic motivation
c. Poor strategy for learning
    i. Provide help with developing learning skills
d. Student's lack of ability
    i. Consider this possibility after you have considered all other possible causes
    ii. Prerequisites and developmental opportunities may help diminish the frequency of this as a cause of failure
    iii. Development of inadequate or absent learning strategies may mitigate this as a cause

IV. The steps of remediation
A. Identify the problem
1. Front end assessment is crucial
a. If you jump to a solution before fully understanding the problem you may not have the correct solution
2. Ask the right questions
a. Was the problem with student's performance due to a problem with their education or training?
b. Did the student perform correctly previously?
i. No: it may be a knowledge deficit
ii. Yes: it may be a motivation deficit
c. Can you describe the problem?
3. Understand the interrelationship between education, performance, environment and needs
a. Complex relationship that may not be initially obvious
b. Take time to explore all areas thoroughly
B. Identify where the deficits came from: educational program or student
1. Look for attributions
a. Insufficient instruction
b. Low expenditure of effort by student
c. Poor strategy for learning
d. Student's lack of ability
C. Retrain student
1. Use the information gathered from the assessment of the problem to design a strategy for improvement
a. Social contracts are critical to successful remediation
i. Student agrees to work towards change
ii. Instructor agrees to help facilitate change process for student
2. Help improve student learning strategies
a. Monitor student's progress in applying these new skills
3. Provide correct instruction and adequate time for practice
a. Involve other members of the educational team
D. Re-evaluate student
1. Repeat remediation process until successful outcome is achieved or logical stop point is reached
a. Program guidelines, rules and regulations should address consequences for failure to perform at expected level following remediation
b. Students should have written documentation that is provided on first class session outlining expectations for success
c.

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Module 21: Cultural Awareness

Cognitive goals

At the completion of this module the student-instructor should be able to:

1. Use his or her own words to define and describe cultural awareness
2. Understand various ethnic and religious values and traditions that may affect a student's behavior
3. Explain the behaviors an EMS instructor can model to show awareness of cultural issues in their classroom
4. Describe aspects of cultural awareness that are important to instill in students in the classroom setting

Psychomotor goals

There are no psychomotor objectives with this module

Affective goals

At the completion of this module the student-instructor should be able to:

1. Defend the need to consider cultural awareness issues when designing and developing instructional plans and curriculum
2. Display behaviors that indicate consideration of cultural awareness issues when dealing with students
3. Share your knowledge of cultural awareness by modeling cultural sensitive behaviors to your students in the classroom

Declarative

I. Why this module is important:
   - A. United States is a country of immigration
     1. 1940 - 70% of immigrants from Europe
     2. 1992 - 37% from Asia; 44% from Latin America and Caribbean; only 15% from Europe
     3. Many individuals embrace their culture and do not wish to surrender it
        - a. Resulting in cultural pluralism
        - b. The nation profits from contributions different groups make to society
   - B. Cultural diversity in the United States
     1. At least 106 ethnic and over 500 American Indian groups
   - C. It is difficulty to set aside strongly held beliefs or values
     1. Individual may not even be aware they have a bias

II. Understanding age
   - A. Era in which one grows up puts an indelible imprint on one's values and expectations
   - B. Age at which individual is considered an adult and capable of making adult decisions varies within groups

III. Understanding gender
   - A. Gender roles (female physician or paramedic, male nurse)
   - B. Men and women communicate differently
   - C. Women interact to form relationships
   - D. Men establish hierarchy of order

IV. Understanding ethnicity
   - A. Ethnic background includes native language and cultural norms (holiday observances, food preferences, social affiliation, health care beliefs and preferences)
   - B. While some Americans are comfortable with self-reliance and independence, this is not the case for all cultures in America
     1. Interdependence with relatives and friends
        - a. Family/extended family are very important
        - b. One may not be comfortable speaking out in a group that is not family

i. May be perceived as aggressive
ii. May bring shame and embarrassment to family

C. Some ethnic cultures are non-aggressive and non-confrontational
1. Some may not be comfortable making eye contact when conversing with a person in authority (e.g., teacher, physician, nurse, etc.)
2. Many cultures address persons of authority formally (by title or surname) until receiving permission to do otherwise

D. Gestures and speech patterns do not have universal meaning
1. Smile or nod may be a sign of not understanding or not wishing to disagree with authority
2. Snickering may be a sign of embarrassment and confusion
3. "Yes" may mean, "I heard you" rather than "I agree"
4. Some ethnic groups value silence as a sign of respect and attentiveness; for others it may be a sign of disagreement
5. Humor (particularly sexual in nature) and gestures is offensive to various cultures

V. Understanding physical ability
A. Approximately 43 million Americans have a physical disability
B. Report being frequently ignored when in a group
C. Gauge to what level the individual desires or needs your assistance before offering assistance

VI. Understanding sexual orientation
A. Non-heterosexuals are often assumed to be infected with the AIDS virus

VII. Understanding race
A. Some races are more stereotyped than others

VIII. Understanding religion
A. Student may be unavailable for class assignments
B. For Seventh Day Adventists and Jews - Saturday is the Sabbath
C. Muslims pray five times each day
1. Student will not be available for class assignments during prayer times
D. Jehovah's Witnesses forbid celebrations, with the exception of the wedding anniversary
1. Student may not attend birthday, graduation, or holiday parties
E. Christian Scientists and Jehovah's Witnesses may not administer blood or blood products
F. Mormons fast for 24 hours once a month
G. Religious mandates may impose specific dress codes that conflict with field or clinic settings

IX. Understanding education
A. Students with less formal education may feel intimidated or be less articulate in the classroom
1. May feel less entitled to ask questions

X. Understanding marital status
A. May hinder or enhance student's commitment to obligations of the class
B. The cultural or ethnic group may place a great deal of importance on the marriage and decisions regarding student issues may be made by family members

XI. Understanding income
A. Can limit access to education, transportation, and additional class expenses

XII. Understanding parental status
A. Child care issues can interfere with scheduled student responsibilities

XIII. Understanding appearance
A. Can affect one's perception of a student's commitment to the education program and a career as a healthcare professional
B. Religious convictions may impact upon appearance as certain clothing may be required or a certain hairstyle may be imposed upon the individual by their religion or culture
C. Individual rights may conflict with dress codes in field or clinic settings

XIV. Understanding personal habits
A. Things like smoking, drinking and exercising can build or hinder collegial relationships

B. Personal choices, ethics, morals and convictions may prohibit some students from participating in group activities

XV. Understanding geographic location
   A. Students from other areas may not feel welcome in the classroom setting

XVI. Realities of cultural diversity
   A. Culture is not overt
      1. It has a powerful influence but is subtle
   B. We are all essentially ethnocentric beings meaning we place a great deal of value in our own culture and consider it normal behavior
      1. We rarely question our own cultural identity, and naturally assume our rules, values and beliefs to be correct
   C. We tend to judge negatively those who are different
      1. We observe, interpret, then act
      2. Based on our own cultural programming, we attach meaning to behaviors
      3. We may not know when we are offending others

XVII. Communication and respecting diversity
   A. 50 – 90% of all communication is non-verbal
   B. Pay attention to body language, facial expressions, and other behavioral cues
   C. Try not to use idioms and slang
   D. Do not take others' behavior personally
   E. We walk a fine line between understanding and stereotyping
      1. Be careful not to label individuals simply because you have a given expectation of their cultural values and traditions
   F. Remember that we are all different
      1. This includes various educational experiences and ways of learning

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Module 22: Teaching Resources

Cognitive goals

At the completion of this module, the student-instructor should be able to:

1. Discuss the importance of mentors for the development of a professional EMS instructor
2. Discuss the importance of working with various allied health personnel, including State EMS agency personnel, area hospital personnel (ER physicians, nurses, respiratory therapists, pharmacists, etc), non-hospital affiliated physicians and area paramedic program faculty (e.g., college and university)
3. Discuss the importance of validity, utility and the effective use of resources in delivering content in a program
4. Discuss the importance of attending professional development opportunities (e.g., EMS and education conferences and workshops)
5. Discuss the usefulness of a library in developing educational content
6. Discuss the importance of research for each of the following:
    - When developed for a specific organizational need
    - Used when participating in larger multi-organizational projects
    - As a contribution to the body of knowledge
7. Discuss the importance of developing a support network with each of the following:
    - local political officers (e.g., county council, mayor, city manager)
    - physicians
    - publishers
    - area EMS instructors
    - area paramedic program faculty (e.g., college and university)
    - other faculty within your agency
8. Discuss the importance of using community service as a means of developing teaching skills
    - through presentations to public groups (e.g., scouts, schools, civic groups)
    - assisting with area EMS courses

Psychomotor goals

At the completion of this module, the student-instructor should be able to:

1. Given a specific EMS instructional setting (with audience, teaching site, and course type provided) the student-instructor should be able to take specific EMS course content resources (provided to them) and evaluate that resource for validity, utility and effectiveness in the described setting
2. Use the resources described in this module to enhance lesson plan content

Affective goals

At the completion of this module, the student-instructor should be able to:

1. Describe why it is important for EMS instructors to seek a mentor
2. Explain the importance of critical evaluation of teaching resources
3. Value the importance of developing methods designed to enhance personal growth and life-long learning

Declarative

I. Why this module is important
    A. One of the greatest challenges of an EMS instructor is finding high quality resources for teaching
    B. A mentor is a valuable resources to any instructor, not just a novice one
        1. They can help direct your continuing personal and professional development
        2. They can serve as a resource for problem solving instructional issues

II. The importance of mentoring in the development of EMS instructors
    A. Mentors are an excellent resource for content and teaching methods and techniques

B. Mentors provide
    1. Guidance
    2. A good example to model yourself after
    3. Constructive criticism to help you grow (personally and professionally)
    4. Insight from their experiences
C. Mentors may be
    1. EMS educators
    2. Educators from other allied health fields
    3. Physicians
    4. Nurses
    5. Other healthcare professionals
        a. Respiratory technicians, physical therapists, etc.
    6. Educators from other academic settings
        a. Colleges of education
        b. Programs specializing in rescue, fire and law enforcement
    7. Other individuals
D. Where to find mentors
    1. Mentors can come from a variety of fields, not just EMS or allied health (politicians, clergy, business leaders, lawyers, managers, etc)
        a. The key is that they are truly concerned with the success of the student and with your development as an instructor
    2. Do not limit your opportunities to grow and develop, pick mentors from the political, administrative, legal, financial or other fields

III. Media as a resource
A. Media takes many forms and comes in many price ranges
    1. Expensive is not necessarily better
B. Add a variety of media to your presentations to keep students interested and to maximize various student learning styles and preferences
C. Media should be evaluated to determine that it is:
    1. Appropriate for the audience
    2. Professionally presented
    3. Targeting students reading and comprehension levels
    4. Covering an appropriate depth of information
    5. Accurate
    6. Containing current information, including trends and updates
    7. Promoting good behavior and practices in students (example: wearing gloves while attending to patients)
    8. Easy to use
D. Determine what you need to use the selected media
    1. Computers, overheads, white boards, etc.
    2. It should fit well into the environment you will use it in
    3. If it malfunctions, can you fix it quickly?
    4. Do you have a back-up plan in case of problems?
E. Media should be defendable and credible
    1. From refereed journal or a peer-reviewed Internet site
    2. Do not assume because it was commercially prepared that it is designed well or the content is accurate
        a. Closely scrutinize any media before you use it

IV. Conferences, workshops and continuing professional development opportunities
A. Current science is reviewed or presented
B. Expanding your background knowledge
C. Teaching methodology and pedagogy is presented

D. Observing others teach helps you teach better
E. Sharing tips, ideas and techniques
F. Opportunities for networking (building support groups)
G. Exposure to vendors who present new products
    1. Often they provide free samples of merchandise or books
    2. They may have training materials (models, or content) for you to use in your courses
    3. Opportunities to maintain your own certification as a provider as well as enhance your instructor abilities

V. The library as a resource
    A. Public
        1. Generally easily accessible
        2. Often will have free access to a limited sample of medical databases
        3. May offer some technical support for performing on-line and non on-line information searches
        4. Generally found in most communities
    B. Academic based (college or university)
        1. May have content specific materials and access to more scientific material than a public library
        2. May have more liberal hours of operation (especially during finals week)
        3. Medical school libraries have large collections of allied health materials as well
        4. Will have staff who specialize in research strategies
        5. May require users to be affiliated with the institution
        6. Computerized databases offered within standing libraries or via the Internet
    C. General databases: CINAHL, NEXUS/LEXUS, etc.
        1. Databases are available in both public and private libraries
        2. Educational focused: ERIC, etc.
        3. Medical focused: MEDLINE, Greatful Med, etc.
        4. Many have free Internet access
        5. Many offer free or inexpensive resources
        6. May have links with other libraries for borrowing materials
            a. May be available to be used as a test-proctoring site
            b. May provide free or low cost interlibrary loan system
            c. Often contain archived material

VI. Research as a resource
    A. Access to and opportunities for research are critical to the development of the EMS profession
    B. Research is considered one aspect of professional growth and development
    C. Research can be done to address a specific need for an organization (e.g., intubation success, on-scene times, etc.)
    D. Once completed a problem may be solved, a process changed, or training program developed
    E. It may be done in collaboration with other institutions to address a profession-wide issue (e.g., effectiveness of teaching EKG via distance learning for paramedic students)
    F. It provides a basis for further study and future projects
    G. It helps us demonstrate our value to the medical community

VII. The value of professional groups for EMS instructors
    A. Provide mentoring and support for other instructors
    B. Provide access to guidance when dealing with political issues (e.g., county funding for a certification course)
    C. Provide examples of excellent teaching

VIII. Organizations and groups that are potential sources of information
    A. American Society for Testing and Materials (ASTM)