REQUIREMENTS:

MICHIGAN EMS INSTRUCTOR COORDINATOR EDUCATION PROGRAM CURRICULUM

INITIAL COURSE

REFRESHER COURSE

CONTINUING EDUCATION

Instructor Coordinator programs must be based on the following criteria and approved by MDHHS-BETP, Division of EMS. Individuals completing programs that have not been approved by the Department will be ineligible for licensure.

Contents

EMERGENCY MEDICAL SERVICES INSTRUCTOR-COORDINATOR EDUCATION PROGRAM

INITIAL PROGRAM

I. Program Purpose

The Emergency Medical Services Instructor Coordinator (EMS IC) program will provide the student with a minimum knowledge base and understanding to effectively develop, manage, and instruct the appropriate levels of Emergency Medical Services (EMS) education programs.

II. Program Sponsor Approval

A. The program sponsor must obtain approval utilitizing the Instructor Coordinator Program Application through MDHHS-BETP.

B. The program will be administered according to the criteria outlined in the program approval process.

C. The Program Director will meet all identified criteria as outlined in the program approval process. Refer to The Program Director Manual for all required information for the Program Director.

D. The Instructor Coordinator(s) of the course will meet all identified criteria as outlined in the program approval process**.**

E. Instructional Staff:

Those segments of the course that relate to instructional techniques must be taught by an individual who possesses, minimally, one of the following:

1. Any baccalaureate degree, a teaching certificate at the elementary or secondary level and demonstrated teaching experience.
2. A baccalaureate degree in education and demonstrated teaching experience.
3. A master's degree in education.

Two (2) exceptions to this requirement are the lectures on Preparation and Use of Instructional Aids and Practical Skills Instruction, which may be co-taught by an individual possessing EMS licensure and relevant field experience.

F. The topics of "EMS Program Coordination Issues", "Review of MDHHS-BETP Requirements" and "MDHHS-BETP Exam Process Overview" must be taught by the MDHHS-BETP Education Coordinator or Regional Coordinator. Attendance at these sessions are ***mandatory*** for student completion. Arrangements for scheduling these classes must be made directly with the Education Coordinator. (Simply submitting the course schedule is not sufficient.)

III. Program Length

The program must include a minimum of 140 hours of classroom instruction, outlined in the Summary of Course Content Minimum Requirements.

In addition, a minimum of thirty (30) hours of supervised Student Teaching are required. Student Teaching must occur outside of the EMS IC program and under the direction and supervision of a licensed Instructor Coordinator (IC). An evaluation of the activity should be performed by an IC who is not directly involved with the IC program. Student teaching must be performed, minimally, in the following two categories: an initial training program ***and*** continuing education or refresher program. Student teaching must include both didactic and psychomotor sessions. See Appendix B for specific student teaching requirements.

a. Certification courses, such as AHA courses, PHTLS courses, etc., do not qualify for student teaching experience.

IV. Course Materials/Text

The choices of text(s) and handout materials for the program are left to the discretion of the program IC. However, the material content must include the design and use of goals and objectives, test writing and evaluation, current Michigan EMS legislation, including Public Act 568 of 2006, and related Administrative Rules, course requirements, and related objectives.

V. Required Curriculum

The curricular aspects of the program are to be based on the "Emergency Medical Services Instructor Training Program-A National Standard Curriculum, 2002" published by National Highway Traffic Safety Administration Office of EMS. The lesson plans made available through NHTSA will need to be followed to effectively meet the requirements of the course.

In addition, the Michigan required curriculum has both objectives and supplements, which must be included in the program. The Instructor Coordinator licensure examination is based on both the NHTSA document and the Michigan curriculum.

VI. Examination for Licensure

The program IC must submit a course completion roster identifying the students who ***successfully*** completed the course within 30 days of course end. It is the responsibility of each individual seeking licensure to submit a completed application and proof of successful course completion to MDHHS-BETP through the Michigan E-licensing Portal. Link: https://www.mi-emsis.org/licensure/portal#/login

VII. Instructor Coordinator Refresher Course

This course is designed to refresh initial education for the Instructor Coordinator. Minimum

required hours for this course is 30, and the refresher course hour breakdown is listed in the Summary of Course Content Minimum Requirements.

VIII. Instructor Coordinator License Renewal Options

License is valid for three years. Renewal is dependent on the following options:

1. Successfully complete a Department approved Instructor Coordinator refresher program;
2. Accrue 30 credits in Department-approved professional development continuing education;

Instructional Techniques	Measurement & Evaluation	Education Administration
Minimum 3	Minimum 3	Minimum 3

-or-

3. Accrue 30 credits through a combination of 20 professional development continuing education and 10 educational performance credits.

   Part A: Professional Development Credits. A minimum of 20 credits for professional development through Department-approved Instructor Coordinator continuing education programs are required.

Instructional Techniques	Measurement & Evaluation	Education Administration
Minimum 3	Minimum 3	Minimum 3

   Part B: Performance Credits. In addition to the 20 credits required in Part A; 10 credits are required in any of the following categories:

   EMS INSTRUCTION: One credit for every four hours of instruction (initial, refresher, or continuing education). Proof: CE Rosters, IC credit slip, course syllabus, etc.

   EXAMINATION EVALUATION: One credit for every two hours in which you assist as a skills examiner for a State approved practical exam. Proof: Credit slip from Regional Coordinator

   COURSE COORDINATION: Three credits for every Education Program Sponsor OR CE Sponsor approval. Two credits for every Program Sponsor OR CE Program Sponsor re-approval. One credit for every 15 continuing education credits approved and coordinated. Proof: Copies of Education Program Sponsor approvals or CE approval.

SUMMARY OF COURSE CONTENT MINIMUM REQUIREMENTS

	Minimum Required Hours	Refresher Hours
Module 1: Introduction	1	.5
Module 2: Roles and Responsibilities	6	1
Module 3: Administrative Issues (see Michigan Supplement)	3	1
Module 4: Legal Issues in EMS Education	5	2
Module 5: Ethics	4	1
Module 6: The Learning Environment	5	2
Module 7: Learning Styles	5	1
Module 8: Domains of Learning	5	1
Module 9: Goals and Objectives	5	1
Module 10: Lesson Plans	8	1
Module 11: Presentation Skills (includes student presentations)	20	1
Module 12: Evaluation Techniques (include test-item writing and psychomotor evaluation)	8	3
Module 13: Facilitation Techniques	5	2
Module 14: Communication and Feedback	5	.5
Module 15: Motivation	5	.5
Module 16: Teaching Thinking Skills	5	1
Module 17: Teaching Psychomotor Skills	5	1
Module 18: Affective Domain	5	1
Module 19: Discipline	5	.5
Module 20: Remediation	4	.5
Module 21: Cultural Awareness	4	.5
Module 22: Teaching Resources	5	1
Module 23: Research	4	1
Module 24/25: Course Coordination in Michigan	5	2
MDHHS-BETP Requirements	4	2
NREMT Exam Overview	4	Optional
Total Required Course Hours	140	30
Total Required Student Teaching Hours	30	
	170 Total	

SUMMARY OF CONTINUING EDUCATION TOPICS

Module 1: Introduction	
Module 2: Roles and Responsibilities	Educational Administration
Module 3: Administrative Issues (see Michigan Supplement)	Educational Administration
Module 4: Legal Issues In EMS Education	Educational Administration
Module 5: Ethics	Educational Administration
Module 6: The Learning Environment	Instructional Techniques
Module 7: Learning Styles	Instructional Techniques
Module 8: Domains of Learning	Instructional Techniques
Module 9: Goals and Objectives	Instructional Techniques
Module 10: Lesson Plans	Instructional Techniques
Module 11: Presentation Skills	Instructional Techniques
Module 12: Evaluation Techniques	Measurement and Evaluation
Module 13: Facilitation Techniques	Instructional Techniques
Module 14: Communication and Feedback	Instructional Techniques
Module 15: Motivation	Instructional Techniques
Module 16: Teaching Thinking Skills	Instructional Techniques
Module 17: Teaching Psychomotor Skills	Instructional Techniques
Module 18: Affective Domain	Instructional Techniques
Module 19: Discipline	Educational Administration
Module 20: Remediation	Instructional Techniques
Module 21: Cultural Awareness	Instructional Techniques
Module 22: Teaching Resources	Educational Administration
Module 23: Research	Educational Administration
Module 24: Course Coordination in Michigan	Educational Administration
MDHHS-BETP Requirements	Educational Administration
NREMT Exam Overview	Measurement and Evaluation

SUGGESTED TOPICS FOR MINI-PRESENTATION

Motivating Groups Who Do Not Want to Be in Class (e.g. Mandatory Class)

Building Self-Confidence in the Insecure Student

Professional Behavior and Ethics

Researching Available Textbooks for All Levels

ADA's Effect on The Classroom

Budgeting for a Course

Recruiting for a Course

Obtaining and Preparing Guest Instructors

Virtual Classroom Options

Active Learning Supplements

Creating a Syllabus

Dismissing a Student from the Class

Minimizing Test and Other Anxieties

AV Resources and their uses

Maintaining Course Records

Arranging Student Clinical Hours

Setting Up NREMT Cognitive and Psychomotor Exams

Test Preparation

STUDENT TEACHING GOALS AND OBJECTIVES

The student teacher will:

1. Develop a lesson plan that includes audio-visual aid/s and a suitable quiz for each topic they present.

2. Dress appropriately for the class, and act in a professional manner.

3. Present and discuss the lecture outline with the IC preceptor prior to the class.

4. Present a class in an initial education program.

5. Present a class that is a continuing education or refresher.

6. Provide each student in the class with an evaluation form provided by the IC program.

7. Receive verbal and documented feedback from the preceptor.

8. Ensure that the Instructor Coordinator of the IC program receives the preceptor and student evaluations as soon as possible following each program they instruct.

9. All student teaching requirements must be completed by the end of the course.

10. Determine that the students gained the knowledge required from this lesson.

Module 24 Michigan IC Course Required Objectives

MDHHS-BETP Education Program Requirements

Instructor: MDHHS-BETP EMS Education Coordinator or MDHHS-BETP Regional Coordinator/IC Instructor

Section I MDHHS-BETP Administration of EMS Education Programs
Time: 4 hours
Objectives: At the conclusion of this session, the student will:

1. Explain the role of MDHHS-BETP
2. Explain the role of the Regional Coordinator
3. Understand Public Act 368 of 1978, as amended
4. Know EMS Public Act 179 of 1990,and other aspects of Michigan EMS laws and Medical Legal Curriculum
5. Understand administrative rules and administrative policy

Section II Initial Training
Time: 2 hours
Objectives: At the conclusion of this session, the student will be able to:

1. Understand the EMS Education Program Sponsor Approval Process
2. Plan a full course schedule
3. Explain required documentation for course completion
4. Virtual options for initial education

Section III Continuing Education
Time: 2 hours
Objectives: At the conclusion of this session, the student will:

1. Understand the Continuing Education requirements for MFR/EMR, EMT, Specialist/AEMT, Paramedic, and IC.
2. Complete Continuing Education application forms and all required supplemental documents
3. Explain the process of applying for CE within initial education courses
4. Virtual options for continuing education
5. Have knowledge of Standardized EMS Continuing Education Credit Guide
6. Have an understanding of Continuing Education Programs Approval Guidelines

Section IV Licensure Process
Time: 0.5 hours
Objectives: At the conclusion of this session, the student will be able to:

1. Explain the eligibility for licensure at the Instructor Coordinator level
2. Explain the license application process
3. Explain the license renewal process
   a. CE or refresher requirements
4. Explain the requirements for re-licensure
   a. after a license lapses, there is a three-year time-frame to get professional development credits and apply for re-licensure.

Section V Examination Process
Time: 0.5 hours
Objectives: At the conclusion of this session, the student will be able to:

1. Discuss NREMT eligibility requirements for the cognitive examination at each level: MFR/EMR, EMT, Specialist/AEMT, and Paramedic
3. Understand the NREMT Criminal Conviction Policy and State of Michigan laws regarding convictions and clinicals.
5. Understand the NREMT ADA Accommodations Policy
5. Explain the composition and construction of the cognitive computer adaptive and computer- based exams
6. Explain the re-test process and eligibility
   a. MFR/EMR level may test up to 3 times within two years of course completion
   b. All other levels may test up to 6 times within two years of course completion, however, after three failed attempts, they must complete a refresher course
6. Instructor Coordinator application for testing and licensure

Section VI Psychomotor Exam Administration
Instructor: Program IC
Time: 2 hours
Objectives: At the conclusion of this session, the student will be able to:

1. Explain the NREMT eligibility requirements for the psychomotor examination at each level: MFR/EMR, EMT, Specialist/AEMT, and Paramedic
2. Explain the application process for each level of examination
3. Understand the roles and responsibilities within the psychomotor examination for MFR/EMR Users Guide and EMT Users Guide levels[1]
4. Explain the psychomotor stations and station/equipment requirements for each level of examination
5. Have a thorough understanding of inter-rater reliability
   a. The process of calibrating instructors to the evaluation tool so that each instructor is grading exactly the same way[2]
6. Perform as a psychomotor skill examiner

[1] Each program must utilize these users guides to conduct the NREMT psychomotor exam at the end of the course
[2] As cited in Foundations of Education An EMS Approach, page 227 (3rd ed.).

Module 25: Coordination Issues for the Michigan Instructor Coordinator

Instructor: EMS Education Coordinator

Section I & II Introduction and Coordination Concepts
Time: 0.5 hours
Objectives: At the conclusion of this session, the student will be able to:

1. Identify the general responsibilities for program coordination

Section III Program Development
Time: Included with Program Requirements (4 hours)
Objectives: At the conclusion of this session, the student will be able to:

1. Explain the process for program sponsor approval and reapproval
2. Understand the process of application for an Initial EMS Education Program Sponsor Approval
3. Explain the role and responsibilities of the Program Director
4. Identify the role and responsibilities of the Physician Director
5. Identify the requirements and responsibilities of Instructional Faculty
6. Define the required learning resource availability
7. Identify the requirements for clinical resources
8. Identify and explain the provisions for clinical objectives and student clinical evaluation
9. Identify and explain the required student policies
10. Identify and explain the required program operation policies
11. Explain the requirements for program evaluation
12. Identify EMS approved curricula for Michigan EMS programs
13. Identifies scope of practice for each level of licensure in Michigan

Section IV Other Coordination Issues
Time 0.5 hours
Objectives: At the conclusion of this session, the student will be able to:

1. Explain the need for professional mentors
2. Identify student resources that should be provided
3. Discuss instructor performance and instructor development

Module 3 – Michigan Insert

B. State level
   1. Michigan Department of Health and Human Services, Bureau of EMS, Trauma and Preparedness
      a. Division of EMS
         i. Licensing
         ii. Complaint & Allegation
         https://www.michigan.gov/mdhhs/0,5885,7-339-73970_5093_28508_76847---,00.html

2. Legislation and Administrative Rules of Emergency Medical Services
    a. Michigan.gov/ems- Michigan Public Health Code and Administrative Rules for EMS
3. Emergency Medical Services Coordination Committee
    a. Subcommittees
        i. Quality Assurance Task Force
        ii. Education Committee
        iii. Operations
        iv. Legislative
4. Michigan EMS
    a. Society of Michigan Emergency Medical Services Instructor Coordinators https://smemsic.net/
    b. Michigan Association of Ambulance Services https://www.miambulance.org/
    c. Michigan EMS Practitioners Association http://www.miemspa.org/
    d. Michigan College of Emergency Physicians https://www.mcep.org/

5. National EMS
    a. NAEMT- http://www.naemt.org/
    b. NREMT- https://www.nremt.org/rwd/public
    c. NAEMSE- https://naemse.org/default.aspx
    d. NASEMSO- http://nasemso.org/
    e. CoAEMSP- https://coaemsp.org/
    f. CAAHEP- https://caahep.org/
    g. NHTSA- https://www.ems.gov/
    h. CAPCE- http://capce.org/

Michigan Required Curriculum

By the end of these educational modules the student will have gained thorough knowledge in:

Professional Behavior

I. Definition

a. The conduct, aims, or qualities that characterize or mark a profession or a professional person[3]

II. Discussion

b. "The transition of an occupation being recognized is professionalization and these changes are initiated in the academic setting" (Bowen, Williams, & Stanke, 2017)[4]
c. Professional status is earned, and it is the responsibility of the occupation to act professional
d. Unprofessionalism is the most frequent complaint against an EMS provider (Bowen, Williams, & Stanke, 2017)[4]
e. Professionalism is measured by utilizing Affective Evaluations. These evaluations should be conducted throughout all courses and include information on how to improve in lacking areas of professional behavior.
f. Review the NAEMT Code of Ethics
g. Each instructor should create their own educational philosophy that "purposely utilizes attributes to become an effective educator and supports the desired outcome of producing excellent EMS practitioners" (Abrahamson & McKenna, 2020)[5]

Affective domain

I. Define the following:

a. Integrity
b. Empathy
c. Self-Motivation
d. Appearance and personal hygiene
e. Self-confidence
f. Effective time management
g. Teamwork and diplomacy
h. Respect
i. Patient advocacy
j. Careful delivery of service

Each IC student must understand and follow these professional behaviors in the classroom and act as a role-model to their future students.

[3] Merriam-Webster, 2021

[4] Professionalism among paramedic students: achieving the measure or missing the mark? https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5659233/ Discussion continues from this scholarly article.

[5] Foundations of Education An EMS Approach. Jones & Bartlett Learning: Burlington, MA

II. Values of the EMS Educator

1. Ethics: Moral principles that govern a person's behavior or the conducting of an activity. Be the example for others to follow.
    a. Each student must be presented with Michigan EMS Code of Ethics.
2. Empowerment: Encouragement, self-esteem.
3. Experience: Learning experiences are often helpful to the student, but stay clear from focusing on one's own experience, as people learn in various ways. Stay away from overwhelming students with "war stories".
4. Diversity: Various background, experiences, and cultures in the classroom offer a full educational experience.
5. Rights: Every learner has the right to a clear understanding of the program, access to resources, availability of the instructor, to be treated with dignity and respect, and to feel safe in the classroom.
6. Mentorship: Educating requires teamwork. Mentors will help a new instructor navigate through all the required materials, organize their program, offer insight to best-practices, and be available for advice in the success of their program.

III. Bias

1. Definition
    a. Merriam-Webster defines bias as an inclination of temperament or outlook, especially a personal and sometimes unreasoned judgment.
    b. Implicit Bias (unconscious): Outside of a person's awareness which is often in contradiction of one's own belief and values.
    c. Explicit Bias: A person is clear about their feelings or attitudes toward something (race, gender, etc.).
2. Discussion
    a. As a society, we must all be aware that each person has some type of implicit bias. This bias can include race, gender, sexual orientation, etc., and can also be included for an area of town that the EMS agency serves, a homeless shelter, a specific nursing home, super-utilizers of the 911 system, etc.
        i. Are our biases reflected onto the student?
        ii. Are your clinical preceptors instilling their own biases onto the student?
    b. There is no room in the EMS profession for person's who have explicit bias. An outward disregard or negative treatment of someone based on the specific bias is unacceptable and it is the Instructor Coordinator's responsibility to remove any student who offers these bias'.
        i. The Affective Evaluation will assist the IC in recognizing these biases.
        ii. There are many scholarly articles on how to recognize implicit and explicit bias. It is recommended to have IC students research some of these articles and write a paper on bias.
        iii. The EMS education program must have a policy on non-discrimination.
        iv. The EMS education program must have a policy on student dismissal.
3. Recommended Assignment
    a. Self-study of personal bias
    b. Create a project on how to rid these biases and promote professionalism for all.

IV. Not-Quite-Adult Learners

1. Career and technical education is common in high schools. CTE is the practice of teaching skills-based careers to students. There are many high school EMT programs in Michigan.

    a. Cognitive: This age group is generally adaptable to learning environment.
    b. Psychomotor: This age group must learn how to work as a team and learn how to put the cognitive knowledge into the psychomotor domain.
    c. Affective: This age group must learn professional behaviors and the IC must spend additional time on the affective domain.
    d. Death: This age group may not have any experience dealing with dying and death. Additional time must be spent on this subject prior to clinical assignments.
    e. Social Learning Theory: Four elements (Bandura, 1971)[6]
        i. Attention
        ii. Retention
        iii. Reproduction
        iv. Motivation

V. SMART Goals

1. Acronym
    a. Specific: What will be accomplished and what actions will you take?
    b. Measurable: What data will measure the goal?
    c. Achievable: Do you have the necessary resources?
    d. Relevant: How does this goal align with overall achievement? Why is it important?
    e. Time-bound: Time-frame to accomplishment.
2. Why SMART Goals/Objectives?
    a. SMART goals address all responsibilities of the IC
    b. SMART goals address all objectives of the class
    c. SMART goals assist in measuring success

VI. FERPA-Family Educational Rights and Privacy Act (FERPA)

The Family Education Rights and Privacy Act is a Federal law that protect the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education
https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html

1. Student records should be confidential and must be securely stored at the approved program site
    a. All student records belong to the approved education program and may only be released with signed permission
2. Recommended assignment:
    b. The IC student should write a paper on Student Privacy Case Law

VII. T.E.A.C.H. Act-Copyright

1. Technology, Education, and Copyright Harmonization Act of 2002 that deals specifically with copyright law.
    a. https://www.copyright.com/wp-content/uploads/2015/04/CR-Teach-Act.pdf

[6] Bandura, A., 1971. Social Learning Theory. General Learning Press: New York City, NY.

2. Recommended assignment:
    b. The IC student should research case studies of copyright infringement by teachers.

VIII. Accreditation

1. Accreditation is defined as a non-governmental, independent, collegial process of self and peer assessment. The purpose of accreditation is to provide a system of public accountability and continual improvement of academic quality (NHSTA, 2000., EMS Education Agenda for the Future., p. 27-29)[7].
    a. https://www.ems.gov/pdf/education/EMS-Education-for-the-Future-A-Systems-Approach/EMS_Education_Agenda.pdf
    b. National Highway Traffic Safety Administration and the National Association of State EMS Officials
        i. https://nasemso.org/wp-content/uploads/Resolution2010-04NationalCertificationandProgramAccreditation20101013.pdf
        ii. https://www.ems.gov/pdf/National_EMS_Scope_of_Practice_Model_2019.pdf ppg. 41-44.

IX. Accreditation Standards

1. Commission on Accreditation of Allied Health Education Programs
    a. https://www.caahep.org/
    b. Standards for accreditation are set by CAAHEP
2. Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions
    a. https://coaemsp.org/
    b. Standards and guidelines for accreditation: https://coaemsp.org/caahep-standards-and-guidelines
    c. CoAEMSP ensures that the programs meet the minimum standards set by CAAHEP and the certificate of accreditation comes from CAAHEP.
3. Accreditation became a requirement for all Michigan Paramedic Initial Education programs on January 1, 2018.

Construction of a Written Examination

X. Blueprinting

1. Purpose of the written examination
    a. Consider the purpose; formative or summative
    b. Have the standards been met prior to the examination?
2. Blueprinting
    a. List the course objectives
    b. Assign a percentage of total questions or points
    c. Number of items necessary to determine competency
    d. Multiply each section's percentage by the total exam length to determine the number of questions needed for each section
3. Develop Draft Exam Items

[7] EMS Education Agenda for the Future: A Systems Approach

XI. Developing Test Items

1. Best Practices (Haladyna, T.M., & Rodriguez, M.C. (2013). Developing and Validating Test Items)
    a. Base each item on one type of content and cognitive demand
    b. Use new material to elicit higher level thinking
    c. Keep the content of items independent of one another
    d. Test important content and avoid overly specific or overly general content
    e. Avoid opinions unless qualified
    f. Avoid trick items
    g. Format each item vertically instead of horizontally
    h. Edit and proof items
    i. Minimize the amount of reading in each item
    j. State the central idea clearly and concisely in the stem and not in the options
    k. Word the stem positively, avoiding negative phrasing
    l. Use only options that are plausible and discriminating
    m. Make sure that only one of the options is the right answer
    n. Avoid using the options none-of-the-above or all-of-the-above
    o. Word the items positively; avoid negative words such as “not”

XII. Grading Strategies

1. Essay items-utilizing a rubric
2. Norm-referenced grading
3. Criterion-referenced grading
4. Set a cut score

XIII. Interrater Reliability

1. Necessary for psychomotor examinations
2. Examiner training is essential for interrater reliability
3. Standardized, objective checklists must be utilized for objectivity

XIV. Validation of high-stakes exams

1. Validates Item Quality ((Haladyna, T.M., & Rodriguez, M.C. (2013). Developing and Validating Test Items)
    a. What type of target domain is intended?
    b. How is the target domain organized?
    c. How is the universe of generalization organized?
    d. How much fidelity is there between the target domain and the universe of generalization?
    e. How are items developed?
    f. What is the intended cognitive demand for each item for a typical set of test takers?
    g. Were items edited?
    h. Were items reviewed for currency and effectiveness?
    i. Were items reviewed for fairness?
    j. Were items pretested effectively?
    k. Who decides whether an item stays or goes or gets revised?
2. Spending time to validate each item on a high-stakes exam is essential for every class.

XV. Virtual Education

1. Live remote education
    a. User friendly virtual format allows interaction the same as if a classroom were utilized.
    b. Policies must be written and followed regarding virtual classrooms, considering:
        1. Dress code
        2. Timeliness
        3. Webcam-On? Off?
2. Recorded sessions
    a. User friendly format, easily located by the student.
    b. Policies must be written and followed regarding recorded sessions, considering:
        1. Verification that student completed assignments

XVI. Improvement Processes

1. Create SMART Goals/Objectives
2. Gap analysis
3. Analyze student evaluations
4. Review program policies
5. Tutor availability
6. Mentorship opportunities
7. Computer-based test prep sites
8. Review instructor evaluations
9. Network with other Instructor Coordinators

Supplements

1. Affective Evaluation Sample (may be downloaded here: Affective Domain Evaluation Tools
2. Ethical Scenarios
3. Simulation Tools
4. Sample Student Teaching Evaluation

Professional Behavior Evaluation

Student Name:[1]

Date of evaluation:

1.	**INTEGRITY** **Competent** **Not yet competent** Examples of professional behavior include, but are not limited to: Consistent honesty, being able to be trusted with the property of others; can be trusted with confidential information; complete and accurate documentation of patient care and learning activities.
2.	**EMPATHY** **Competent** **Not yet competent** Examples of professional behavior include, but are not limited to: Showing compassion for others; responding appropriately to the emotional response of patients and family members; demonstrating respect for others; demonstrating a calm, compassionate, and helpful demeanor toward those in need; being supportive and reassuring to others.
3.	**SELF-MOTIVATION** **Competent** **Not yet competent** Examples of professional behavior include, but are not limited to: Taking initiative to complete assignments; taking initiative to improve and/or correct behavior; taking on and following through on tasks without constant supervision; showing enthusiasm for learning and improvement; consistently striving for excellence in all aspects of patient care and professional activities; accepting constructive feedback in a positive manner; taking advantage of learning opportunities.
4.	**APPEARANCE AND PERSONAL HYGIENE** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Clothing and uniform is appropriate, neat, clean, and well maintained; good personal hygiene and grooming.
5.	**SELF-CONFIDENCE** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Demonstrating the ability to trust personal judgement; demonstrating an awareness of strengths and limitations; exercises good personal judgement.
6.	**COMMUNICATIONS** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Speaking clearly; writing legibly; listening actively; adjusting communication strategies to various situations.
7.	**TIME MANAGEMENT** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Consistent punctuality; completing tasks and assignments on time.
8.	**TEAMWORK AND DIPLOMACY** **Competent** **Not yet competent** Examples of professional behavior include, but are not limited to: Placing the success of the team above self-interest; not undermining the team; helping and supporting other team members; showing respect for all team members; remaining flexible and open to change; communicating with others to resolve problems.
9.	**RESPECT** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Being polite to others; not using derogatory or demeaning terms; behaving in a manner that brings credit to the profession.
10.	**PATIENT ADVOCACY** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Not allowing personal bias to or feelings to interfere with patient care; placing the needs of patients above self-interest; protecting and respecting patient confidentiality and dignity.
11.	**CAREFUL DELIVERY OF SERVICE** **Competent** **Not yet competent** Examples of professional behavior include but are not limited to: Mastering and refreshing skills; performing complete equipment checks; demonstrating careful and safe ambulance operations; following policies, procedures, and protocols; following orders.

[1] Source: NHTSA, National Guidelines for Educating EMS Instructors, 2002.

Ethical Scenario Resources

Ethical Case Studies for discussion

https://practicalbioethics.org/resources/case-studies.html

https://www.ems1.com/ems-today/articles/ems-today-2019-quick-take-medical-ethics-algorithms-A5tul54FN1mRKruM/

http://www.icarevalues.org/story.htm

Ethical Scenarios

1. Female EMT student comes to instructor to report an incident of sexual harassment. Student explains that she had completed her 3rd ambulance clinical shift with a large agency. While on her shift, the truck she is on (Crew #1) responds to assist another crew from the same agency (Crew #2) on a lift assist. Her preceptor has her join Crew #2 during transport so that she can get some much needed patient contact experience. Crew #1 follows to the hospital to assist with the lift assist there and to retrieve the student. During this time, Crew #2's preceptor befriends the student, they become facebook friends and exchange Facebook messages for the remainder of the shift.

   After her clinical shift, she spends about two hours "hanging out" at the base with Crew #2's preceptor and a few other people where they exchange flirty banter and at one point she gives the Crew #2 Preceptor a massage because he is "sore from his shift". She asks him to walk to her car where she reports unwelcome advances occurred, which she is reporting as harassment. After a thorough investigation the Crew #2 preceptor denies everything. He even explains that this is her third EMT class where she got kicked out of the other two for essentially the same situation.
   Question: How will you, as the lead instructor, handle this complaint?

---

2. A Paramedic student who is completing their internship, has just spent nearly two years in the program calls you, his instructor, to advise you that he just has one more shift to complete, but he cannot get it done until the day after you are requiring all clinical time be accounted for.

   He has heard you say before that you have 30 days after the course end date to turn in the roster to the state, so he asks that you delay the roster submission saying "its only one more day." He has been a top performer in the class and you are confident that he will be a solid Paramedic once licensed. He already works as an EMT for an agency that is holding his Paramedic spot for him once he is licensed.

   a. How do you handle this situation?
   b. In what scenario would this be acceptable?

---

3. You run a High School EMT program. One of the students who attends the program has an IEP (Individualized Education Program) that allows for selective questioning on all examinations. Meaning that their teachers from their other classes pick and choose what questions the student will see on an exam and minimizes the number of questions to accommodate for the students ADHD.

    a. How do you handle this?
    b. What is your legal responsibility?
    c. What is your ethical responsibility?

---

4. A graduate of yours has attempted National Registry three times and has been unsuccessful. They understand that they need to attend a “refresher” before they can attempt the remaining three attempts. They approach you, their educator, and ask you to sign off on their paperwork stating that they attended refresher education. They are confident that they know what they did wrong on the exam attempts and have been studying hard with their study group at their fire department.

    a. How do you handle this?

Simulation Teaching Tools

I. Preparation
   a. Low-fidelity or high-fidelity
   b. Simulation manikens: Instructor must be current in the knowledge of setting up scenarios
   c. Set a time limit on each scenario

II. Conditions
   a. Create an immersive learning environment to practice skills and scenarios
   b. Moulage is imperative
   c. Scene should be set-up as a real-life situation or call
   d. Smells can be purchased to create a more accurate scenario
   e. Good actors

III. Accurate scenario
   a. Base the condition of the patient on the care provided by the student
   b. Remain in a learning environment

IV. Safety
   a. Student should feel comfortable in the environment
   b. Maintain well-functioning equipment

V. Debrief
   a. Debrief after each simulated scenario
   b. What learning activity did the student learn?
   c. What feedback will help the student grow?

Sample Student Teaching Evaluation

IC Student Name:	**Date:**
Name of IC Evaluator:	**Level of Course:**
Course Location:	**Lesson Plan Submitted: Y/N**
Topic Presented:	**Didactic /Psychomotor** **(circle)**

Each criterion listed below should be evaluated from 0-3. The Instructor Coordinator student must give the evaluator the lesson plan prior to the course start. Please include any comments to thoroughly evaluate this student.

Criteria	**3**	**2**	**1**	**0**	**Comments**
Preparation Lesson Plan given to IC, quality of objectives, quality of Q&A					
Presentation IC student utilized their own materials, question students knowledge prior to and after the presentation, the material was organized, summary at the end of the presentation, the IC student followed the lesson plan.					
Evaluation from students The students gained knowledge from the presentation, the IC student engaged the initial education students, the materials utilized enhanced their learning					
Evaluation from lead instructor IC student was dressed appropriately, arrived on time, had lesson prepared, taught the session based on the lesson plan submitted.					

Other comments:

IC Signature: Date:

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

TABLE OF CONTENTS

Table of Contents for Appendices

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 – 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,

Judith A. Ruple, PhD, RN, NREMT-P
Project Director
Task force Co-Chair

Angel Clark Burba, MS, NREMT-P
Project Director
Task force Co-Chair

INSTRUCTOR TASK FORCE MEMBERS AND REPRESENTATIVES

Project Co-Chair
Angel Clark Burba, MS, NREMT-P
Howard Community College
Health Sciences Division
10901 Little Patuxent Parkway
Columbia, MD 21044
Email: aburba@howardcc.edu
Phone: (410) 772-4948
Fax: (410) 772-4494

Project Co-Chair
Judith Ruple, Ph.D., NREMT-P
University of Toledo, Health & Human Services
2801 West Bancroft
Toledo, OH 43606
Email: jruple@buckeye-express.com
Email: JRuple@utnet.utoledo.edu
Phone: (419) 530-3195
Fax: (419) 530-3096

Project Administrator
Joann Freel, BS, CMP
Executive Director
National Association of EMS Educators
700 North Bell Avenue, Suite 260
Carnegie, PA 15106
Email: joann.freel@naemse.org
Phone: (412) 429-9550
Fax: (412) 429-9554

IAFC
Cliff Wilson
Battalion Chief/Medical Officer
Kitsap Co. FD7
P.O. Box 1517
Port Orchard, WA 98366
Email: cwilson@kitsapfire7.org
Phone: (360) 871-2411
Fax: (360) 871-2426

Expert Writer
Sandy Hunter, M.Ed.
Program Director
Eastern Kentucky University
225 Dizney, 521 Lancaster Ave.
Richmond, KY 40475
Email: sandy.hunter@eku.edu
Phone: (859) 622-1028
Fax: (859) 622-6333

Expert Writer
Heather Davis, NREMT-P, MPH
Clinical Supervisor
UCLA Daniel Freeman Hospital, Paramedic School
333 North Prairie Ave.
Inglewood, CA 90301
Email: hdavis@mednet.ucla.edu
Email: hdavisemtp@aol.com
Phone: (310) 674-7050
Fax: (310) 680-8640

NAEMSE
Alice Dalton, RN, MS, NREMT-P
Clinical Education Coordinator
Pridemark Paramedic Services
689 Glenarbor Circle
Longmont, CO 80501
Email: twinkers@juno.com
Phone:(303) 939-8111
Fax: (303) 939-8936

Expert Writer
Linda Honeycutt, EMT-P
EMS Clinical Content Editor
HealthStream/EMInet
209 10th Avenue South - Suite 450
Nashville, TN 37203
Email: linda.honeycutt@healthstream.com
Phone: (615) 301-3191
Fax: (615) 301-3200

CoAEMSP
Chris Nollette, EMT-P, NREMT-P, EdD
Program Director
Community College of Southern Nevada
8340 Sky Canyon
Las Vegas, NV 89128
Email: chris_nollette@ccsn.nevada.edu
Phone: 702-360-8683
Fax: 702-651-5028

NCSEMSTC
Steve Mercer
Education Coordinator
IDPH Bureau of EMS
401 SW 7th St., Suite D
Des Moines, IA 50309
Email: smercer@idph.state.ia.us
Phone: (515) 725-0322
Fax: (515) 725-0318

NASEMSD
Michael Armacost
Colorado Department of Public
Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222
Email: mrarmaco@csn.net
Phone: (303) 692-2980
Fax: (303) 452-9396

NAEMSP
Paula Willoughby, DO
Chicago Fire Department
4923 S. Greenwood Ave.
Chicago, IL 60615
Email: paulawilloughby@aol.com
Phone: (773) 924-7579
Fax: (773) 924-7987

NREMT
Phil Dickison, NREMT-P
Associate Director
National Registry of EMTs
6610 Busch Blvd.
Columbus, OH 43229

NAEMT
Mark Terry, BA, NREMT-P
Emergencies Providers Inc.
6740 Eastwood Traffic Way
Kansas City, MO 64129
Email: mterry@micro.com

Email: phild@nremt.org
Phone: (614) 888-4484
Fax: (614) 888-8920

NHTSA
David Bryson, BA, COTR
EMS Specialist
National Highway Traffic Safety Administration
400 Seventh St. SW (NTS14)
Washington, DC 20590
Email: dbryson@nhtsa.dot.gov
Phone: (202) 366-4302
Fax: (202) 366-7721

Phone: (816) 924-2500
Fax: (816) 923-7314

IAFF
Lori Moore
Assistant to the General President
International Association of Fire Fighters
1750 New York Ave NW
Washington, DC 20006-5395
Email: LMoore@iaff.org
Phone: (202) 737-8484
Fax: (202) 737-8418

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.

Acknowledgements

The task force would like to acknowledge the contributions of the following people to the successful development, refinement and production of the final curriculum.

Ms. Joann Freel, Executive Director of the National Association of EMS Educators (NAEMSE). Ms Freel served as the project administrator and oversaw all aspects of the project, specifically in the financial and planning areas. Her knowledge of the grant process and dedication to the vision of the task force was key to the success of the project.

The expert writers who captured the essence of the task force discussions and deliberations and distilled the information into draft form for review by the national EMS community. After the draft

was reviewed, the expert writers incorporated all of the suggestions and modifications into the final product. Thank you to Ms. Heather Davis, Mr. Sandy Hunter, and Ms. Linda Honeycutt for your personal commitment and dedication to this important project.

Mr. David Bryson, NHTSA EMS Specialist**.** Mr. Bryson served as our Federal government contact and liaison. His experience and guidance during the development of the project was invaluable.

The National Association of State EMS Directors, The National Council of State EMS Training Coordinators and the National Association of EMT's for providing access to survey information and supporting the initial surveys of EMS teaching professionals on a national level.

Ms. Jean Miller, Director, Interstate New Teacher Assessment and Support Consortium (INTASC) for her input and direction in the process of developing entry-level educator standards. The design models used by the Consortium were most helpful.

Our colleagues in EMS education who participated in the pilot program held in Portland, Oregon, in April 2002. Your thoughtful and thorough evaluation of the curriculum content was essential to the successful completion of this project. Thank you for your time and your talent.

Thanks to the staff of NAEMSE who provided administrative support throughout this project.

Bibliographical Resources

Boud, D., & Feletti, G. (Eds.). (1991). *The Challenge of Problem Based Learning*. New York: St. Martin's Press.

Burke, J. (Ed.). (1989). *Competency Based Education and Training*. New York: The Falmer Press.

Cross, K. (1981). *Adults as learners: Increasing participation and facilitating learning*. San Francisco: Jossey-Bass.

Dalton, A. (1996). Enhancing critical thinking in paramedic continuing education. *Prehospital and Disaster Medicine*, 11(4), 246-253.

Gagne, R., & Briggs, L. (1979). *Principles of Instructional Design (Second ed.*). New York: Holt, Rfinehart and Winston.

Hoberman, S., & Mailick, S. (Eds.). (1994). *Professional Education in the United States* (First ed.). Westport: Praeger.

Merriam, S. (1996). Updating our knowledge of adult learning. *Journal of Continuing Education in the Health Professions*, 16(3), 136-143.

National Highway Traffic Safety Administration. (1996*). EMS Agenda for the Future*. Washington, DC: U.S. Department of Transportation.

National Highway Traffic Safety Administration. (2000*). EMS Education Agenda for the Future*. Washington, DC: U.S. Department of Transportation.

National Registry of Emergency Medical Technicians. (1993) *National Emergency Medical Services Education and Practice Blueprint*. Columbus, OH:

The Pew Health Professions Commission. (1995). *Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century*. San Francisco: University of California, San Francisco.

The Pew Health Professions Commission. (1993). *Health Professions Education for the Future: Schools in Service to the Nation. San Francisco*: University of California, San Francisco.

The Pew Health Professions Commission. (1991). *Healthy America: Practitioners for 2005 An Agenda for Action for U.S. Health Professional Schools*. San Francisco: University of California, San Francisco.

United States Department of Health and Human Services. (1999). *Building the Future of Allied Health; Report of the Implementation Task Force of the National Commission on Allied Health.* Rockville: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Bureau of Health Professions, Division of Associated, Dental, and Public Health Professions.

United States Department of Transportation, National Highway Traffic Safety Administration, United States Department of Health and Human Services Public Services, & Health Resources and Services Administration, M. C. H. B. (2000). *Emergency Medical Services Education Agenda for the Future: A Systems Approach*. Washington, DC: United States Government Printing Office.

United States Department of Transportation, National Highway Traffic Safety Administration, United States Department of Health and Human Services Public Services, & Health Resources and Services Administration, M. C. H. B. (1996). *Emergency Medical Services Agenda for the Future: A Systems Approach*. Washington, DC: United States Government Printing Office.

Module 2: Roles and Responsibilities

<u>Cognitive Objectives</u>

At the completion of this module, the student-instructor will 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
10. Explain the role of the instructor in the EMS system
11. Given a situation, determine which instructional role should manage the situation. (Program director, primary instructor, secondary instructor, and/or medical director)
12. Describe the professional attributes and skill sets of EMS instructors per the NHTSA curriculum.

Psychomotor Objective

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

1. Develop a syllabus

Affective Objectives

https://www.michigan.gov/documents/mdhhs/Appendix_V_-_Affective_Domain_Evaluation_Tools_601905_7.pdf

At the completion of this module, the student-instructor will 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 2050

3. EMS Education Agenda for the Future

4. Revisions of BLS and ALS National Education Standards

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 learner's 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 National Education Standards for the 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 or new 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, as many of them are not valid

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. Programs must require students to sign documentation verifying receipt of the syllabus and 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/NES objectives along with information on where to obtain the DOT/NES curricula are given instead of listing every objective

    https://www.michigan.gov/documents/mdch/National_Education_Standards_406373_7.pdf

    a. When this occurs, it is recommended that copies of the DOT/NES curricula objectives be easily available to students upon request. The link to these documents are here:

    MFR/EMR:
    https://www.michigan.gov/documents/mdch/National_Education_Standards.EMR.instructional_guide_406369_7.pdf

    EMT:
    https://www.michigan.gov/documents/mdch/National_Education_Standards.EMT.instructional_guide_406370_7.pdf

    Specialist/AEMT:
    https://www.michigan.gov/documents/mdch/National_Education_Standards.AEMT.instructional_guide_406366_7.pdf

    Paramedic:
    https://www.michigan.gov/documents/mdch/National_Education_Standards.Paramedic.instructional_guide_406372_7.pdf

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 or rubric

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

3. Excel or other spreadsheet software

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 conflicts 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 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 and effectively use lesson plans

A. This section provides an overview of why lesson plans are important and lists several sources for lesson plans

B. Module 10: Lesson Plans has additional information on lesson plans, including a description of all elements that make up a lesson plan

C. All EMS instructors must write, modify, and utilize lesson plans

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 https://www.ems.gov/

i. National Education Standards for EMS topics and for specialty items like transportation issues

ii. According to the EMS Agenda for the Future, the future of the NES 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) https://mchb.hrsa.gov/

c. Department of Labor (DOL) https://www.dol.gov/

d. Occupational Safety and Health Administration (OSHA) https://www.osha.gov/

e. Centers for Disease Control (CDC) https://www.cdc.gov/

f. Department of the Environment (DOE) https://www.energy.gov/ehss/services/environment

g. Federal Emergency Management Agency (FEMA) https://www.fema.gov/

h. Department of Homeland Security (DHS) https://www.dhs.gov/

2. Lesson plans for proprietary continuing EMS education classes

a. There are too many classes 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

ii. NREMT NCCP required national lesson plans https://www.nremt.org/rwd/public/document/nccp

iii. CAPCE (Commission on Accreditation on Prehospital Continuing Ed) http://capce.org/

c. Instructors should utilize canned programs cautiously and judiciously

i. Much review is necessary for accurate and valid content

ii. All content may not be appropriate for each specific class

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. Specialty topic areas for their equipment or supplies

ii. Be cautious of bias in their presentations

b. EMS instructor groups sharing resources

i. NAEMSE https://naemse.org/default.aspx

ii. SMEMSIC https://smemsic.net/

c. State EMS agency training division or bureau https://www.michigan.gov/mdhhs/0,5885,7-339-73970_5093_28508---,00.html

Bibliographical References

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 Objectives

At the completion of this module, the student-instructor will 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 Objective

There are no psychomotor objectives for this module

Affective Objective

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

3.1 Value 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. MDHHS-Bureau of EMS, Trauma, and Preparedness website 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
    c. MDHHS-BETP Education Program Resources

       MDHHS-BETP Provider Licensure Information
    d. MDHHS-BETP eLicensing Portal
    e. Public information and media relations
        i. Etc.
2. 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?
3. State chapters of federal organizations listed above

4. State higher education commission

5. 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 Objectives

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

1. Define liability, negligence and the standard of instruction
2. Identify areas of legal liability for the instructor and the Education Program Sponsor
3. Identify risk management considerations for the student, instructor, and Education Program Sponsor
4. Explain the importance of confidentiality
5. Identify applicable federal, State and local laws which affect the EMS teaching profession and the Education Program Sponsor
6. Explain legal considerations regarding copyright and intellectual property issues
7. Develop policies and procedures that will minimize the risk of legal liability for the instructor and the Education Program Sponsor.
8. Given a scenario involving a negligence issue, determine which portion of the liability requirements were involved.
9. Describe the four necessary components for a successful liability case.
10. Differentiate the terms, *laws, administrative rules, standards and policies.*
11. Explain the laws associated with teaching to include, but not limited to: Americans with Disability Act, HIPPA, FERPA, and MIOSHA.

Psychomotor Objective

There are no psychomotor objectives for this module

Affective Objective

At the completion of this module the student-instructor will 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 instructor's 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

Bibliographical references

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

Module 5: Ethics

Cognitive Objectives

At the completion of this module, the student-instructor will 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
8. Given a scenario, describe how a specific ethical model would view the situation.

Psychomotor Objective:

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

Affective Objectives:

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

1. Defend the need to model ethical behavior as instructors
2. Defend the need to incorporate ethics in an EMS classroom.

Declarative

Why this module is important?

Ethics is an important part of medicine

Students will frequently be exposed to situations requiring ethical decisions

Medical advances are occurring faster than policies regarding medical ethics

Bringing ethics into the classroom

Jump right in – ethics is a hot topic and students are interesting in talking about it

By introducing it into the course it suggests to students that it is an integral part of EMS

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

We all are ethical people (who follow various theories) and know the difference between right and wrong

You are teaching – not preaching

Your role is to facilitate discussion

Introduce ethical issues, concepts and theories

Challenge students to find ethical problems in an ethical issue or case study

Guide students towards finding responsible answers or solutions to the problems posed

Module terminology

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

Ethics

The critical examination and evaluation of what is good, evil, right and wrong in human conduct (Guy, 2001)

A specific set of principles, values and guidelines for a particular group or organization (Guy, 2001)

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)

Morals

Those principles and values that actually guide, for better or worse, an individual's personal conduct (Guy, 2001)

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)

Values

Where emphasis is placed and what is rewarded in an organization and society

Guiding principles of behavior and conduct.

The core motivator for behaviors

Ethical theories

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

Divine Law

Based in many religions, primarily Judeo-Christian and Islamic

What is considered good? God's will and word

What is right behavior? Obeying God's will

What are the strengths of this theory? Moral certainty and guidance

What are some of the weaknesses of this theory? Moral certainty, self-righteousness and intolerance

Virtue Ethics

Based in ancient Greek philosophy: Plato and Aristotle

What is considered good? Seeking happiness and living the good life

What is right behavior? Acting virtuously which is necessary for happiness

What are the strengths of this theory? Virtue is its own reward and leads to self-actualization

What are some of the weaknesses of this theory? Consequences, the common good and principle are ignored

Egoism

Based in classical and contemporary philosophy

What is considered good? What I think is best for me is good

What is right behavior? Promoting what is good for me only

What are the strengths of this theory? Leads to moral certainty and moral autonomy

What are some of the weaknesses of this theory? Self-centeredness, moral certainty, selfishness, and unrealistic thinking

Ethical Relativism

Based in classical and contemporary philosophy

What is considered good? Only whatever the individual/group/culture decides is right is right

What is right behavior? Acting in accord with the group's values and principles

What are the strengths of this theory? Tolerance of others, flexible thinking and practicality

What are some of the weaknesses of this theory? It rules out criticism of obvious evil and all is considered relative

Utilitarianism

Based in British/American philosophy: Bentham and Kant

What is considered good? Happiness/pleasure, diminishing misery and pain

What is right behavior? Promoting the greatest good for the greatest number

What are the strengths of this theory? Practical, considers consequences of actions

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

Duty Ethics

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

Guidelines for leading a discussion on ethics

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

Ethical issues in teaching

- Plagiarism
- Falsifying documentation

Cheating or academic dishonesty

Dangerous acts when treating actual patients

Unethical or inappropriate language or behavior with patients, families, and staff

Unacceptable classroom behavior such as violence, threats, harassment, etc

Dealing with ethical issues in teaching

Foster a positive learning environment to minimize behavior problems

Model ethical behavior

Appropriate dress

Appropriate language

Demonstrating concern and respect for others

Commitment to academic excellence and lifelong learning

Publish classroom rules, policies, and expectations

Apply discipline or consequences consistently and fairly

Provide plenty of supervision, mentors, and role models

Bibliographical References

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

Coughlin, S., Soskolne, C., and Goodmath, K. (1997*). Case Studies in Public Health Ethics*. Washington, DC: American Public Health Association.

Edge, R., & Groves, J. (1999). *Ethics of Health Care* (2nd ed.). New York: Delmar Publishers.

Flight, M. (1998). *Law, Liability, and Ethics* (3rd ed.). New York: Delmar Publishers.

Goleman, Daniel. (1998). *Working with Emotional Intelligence*. New York: Bantam Books.

Guy, Jr., Alfred H. (n.d.). *Successful Ways to Teach Ethics in any Discipline*.

Madden, Theresa. (2000) *A Compendium of Ideas and Resources for Using Ethics Across the Curriculum*. Howard Community College.

S. Coughlin, C. Soskolne, & K. Goodmath. (1997). *Case Studies in Public Health Ethics.* Washington, D.C.: American Public Health Association.

Module 6: The Learning Environment

Cognitive Objectives

At the completion of this module the student-instructor will 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.
5. Describe how a student's previous learning experience can impact his or her current learning environment
6. Describe common classroom seating arrangements and the application, benefits, and limitations of each
7. Describe desirable instructor behaviors in the classroom setting to develop a positive learning environment

Psychomotor Objectives-Student Assignments

At the completion of this module the student-instructor will 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 Objectives

At the completion of this module the student-instructor will 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

It is not possible to become a good instructor based solely upon the virtue of being a good practitioner. An instructor must be able to efficiently deliver lessons infused with vibrancy, and permanence, while assuring mastery. Each step of the process the instructor must be imprinting positive attitudes upon the student. This is potentially difficult and convoluted process. It is essential that the instructor can mindfully and strategically employ efficacious techniques and behaviors.

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/ Promote learning with a positive environment:

Where practical, involve students in deciding what they will learn as this can help motivate them to want to learn. Example: if you are covering several unrelated topics in class allow them to decide which order the presentation of topics will follow.

Evaluate students learning preferences and styles and integrate activities and learning experiences into their class that target their preferences

Communicate expectations (in writing and verbally) to the students regarding:

Course participation
Grading policy
Attendance
Reading assignments
Grievance procedures

Emphasize the most important material in the curriculum.

Students learn better and faster when basic needs are met

1. 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

2. Allows students to grow by taking risks in the classroom

    a. Encourage safe experimentation for alternative methods to learn the content of the course

3. Provide a safe place to make mistakes

    a. Builds confidence

    b. Nurtures students who are experiencing some difficulty

    c. Builds leaders by encouraging students to extend their abilities

II. Desirable student behaviors

A. NHTSA/DOT NES for Paramedic has an evaluation instrument which is used to evaluate the affective domain

1. A copy of this document is included in the appendix

https://www.michigan.gov/documents/mdhhs/Appendix_V_-_Affective_Domain_Evaluation_Tools_601905_7.pdf

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:

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 instructor's impact on the learning environment:

The value of a positive learning environment

Students learn better and faster when basic needs are met

Require repetition of skills performance, even when the student performs the skill well

Repeat practice on more than one occasion

Reinforces student attainment of the level of mastery required

Demonstrates student is able to maintain proficiency

Allows students to grow by taking risks in the classroom

Encourage safe experimentation for alternative methods to learn the content of the course

Provide a safe place to make mistakes

Builds confidence

Nurtures students who are experiencing some difficulty

Builds leaders by encouraging students to extend their abilities

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 alternate means of presenting the material

    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 and other professional development programs

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, such as the Society of Michigan EMS IC.

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

IX. **Classroom Arrangement Strategies** - illustrates classroom arrangement styles for various settings and needs (see Appendix for Classroom Arrangements)

X. Theater style-Teacher centered approach

XI. Enhances dissemination of large amounts of information to large groups

XII. May allow disengaged students to “hide” from teacher view.

XIII. Does not facilitate group discussions, or practice sessions.

XIV. Circle, square, open-square, rectangular, chevron or “U” shaped: Teacher and student-centered approach.

XV. Allows for group discussion, easier for all participants to engage others.

XVI. Enable smaller group setting.

XVII. Enables students to be closer to the presentation during demonstrations.

XVIII. Individual or Group workstations: Student-centered.

XIX. May include integrated technology—computer applications or multimedia access.

XX. Workgroups can be working on the same assignment simultaneously or on different assignments.

XXI. Difficult for students to listen to the lecture, or for the instructor to monitor students' activities.

XXII. The instructor, or other facilitators, should walk between stations monitoring that the students are remaining on task while at the same time allowing the students to direct their own learning.

XXIII.

XXIV. The CE classroom vs. the initial training classroom.

XXV. CE Classroom differences

XXVI. The student in the CE classroom has varying degrees of competency already

XXVII. Addressing the initial foundational levels of learning may not be appropriate.

XXVIII. Accept that students may have differing methods, or tricks-of-the-trade, to accomplish tasks.

XXIX. Students may be dealing with degrees of burnout, and need revitalization.

XXX. The student may be your coworkers or supervisors.

XXXI. Anticipate issues with students viewing you as a "one-of-the-guys."

XXXII. Credibility may be difficult if you don't demonstrate care, competency, and empathy while acting as an employee or EMS provider.

XXXIII. Be proactive, and prepare to handle requests for special treatment.

XXXIV. Don't comply with requests to add people on CE rosters if they don't adequately participate in the training.

XXXV. Establish a structure that won't let the authority figure hijack your message.

XXXVI. Avoid the "mandatory training" mindset.

XXXVII. Don't display a, "Sorry guys, we just have to get through this," attitude.

XXXVIII. If the training isn't engaging, expand the topic to include new concepts, perspectives, or best practices.

XXXIX. Consider employing an outside expert presenter.

XL. Higher probability that he/she can provide a fresh perspective.

XLI. Experts present an appearance of greater authority and/or validity.

XLII. Plan ahead for special difficulties if your training occurs while you or your students are on duty.

XLIII. Consider closing the training to those not on-shift, interruptions will lead to them becoming bored.

XLIV. Realize that the level of engagement, and the ability to immerse into a topic will suffer if you have to prepare for the eventuality of an interruption.

XLV.

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

XLVI. LEARNING

XLVII. Kurt Lewin's Model for Change.

XLVIII. Kurt Lewin (1890-1947) was one of the originators of both the fields of social and educational psychology. His basic model of learning was featured in his Model for Change, published posthumously in 1951.

XLIX. Unfreezing: A preparation to disrupt current situations or the status quo.

L. Internal and/or external forces, motivators, must prompt a desire for change.

LI. That force must outweigh the inclination for personal entropy or social constraints.

LII. Change: The action that prompts movement away from the old situation to a more beneficial new situation.

LIII. More than acquiring new knowledge, the student learns new cognitive habits, and changes self.

LIV. Through focusing and reflecting on the personal growth the student can form abstractions and generalizations, and come to understand the desired outcome.

LV. Refreezing: Allowing the new situation to become the new status quo.

LVI. Repeated affirmations have to confirm that the new status quo is beneficial.

LVII. When the repeated affirmation and perceived rewards become habit the student has achieved the intended growth.

LVIII.

LIX. David Kolb's Experiential learning.

LX. Defies measurable outcomes as an outcome.

LXI. Process itself establishes habits and self-perceptions

LXII. Working within Educational Systems of Accountability.

LXIII. Assessment of learning experience

LXIV. Determination of the fitness of candidates

LXV. Establish the readiness for new-hires

LXVI. The Student

LXVII. Learning capabilities.

LXVIII. Multiple intelligences.

LXIX. Howard Gardner (1943-) is a developmental psychologist introduced the concept of multiple intelligences in 1983. Unlike the traditional paradigm of cognitive learning, and IQ tests, both of which emphasize mathematical and logical learning, Gardner identified 7, (later expanded to 9,) various modalities of intelligence. Each person has a balance of strong and weak attributes.

LXX. Visual/Spatial intelligence

LXXI. Bodily/Kinesthetic intelligence

LXXII. Musical intelligence

LXXIII. Interpersonal intelligence

LXXIV. Intrapersonal intelligence

LXXV. Linguistic intelligence

LXXVI. Mathematical/Logical intelligence

LXXVII. Naturalistic intelligence

LXXVIII.

LXXIX. Motivations to learn. (covered in Module 15.)

LXXX. A person may be motivated by internal and or external motivators, of which internal motivators are the more powerful

LXXXI. A person may be motivated by positive or negative motivators, of which positive motivators are the more powerful.

LXXXII. Emotional intelligence.

LXXXIII. Aspects of emotional intelligence was addressed in Howard Gardner's module of Multiple Intelligences in 1983 but it wasn't popularized until 1995. In that year a science journalist, Daniel Goleman, reported on a paper by Peter Salovy and John Mayer written the year before. It demonstrated that emotional intelligence, (EQ,) is more important in development than IQ, and its quantification, emotional quotient, (EQ,) is a more reliable predictor of leadership in life.

LXXXIV. A higher emotional intelligence competence has a positive effect on academic success

LXXXV. The successful first responder must understand, and utilize social skills to interact and empathize with patients, bystanders, and coworkers.

LXXXVI. The Elements of Emotional Intelligence

LXXXVII. Self-Awareness: The ability to know one's emotions, strengths, drives and propensity to allow emotions to guide decisions. Considered to be the most important element.

LXXXVIII. Self-Regulation: the ability to regulate or redirect disruptive emotions in an evolving circumstance.

LXXXIX. Social skill: Managing interpersonal relationships in a way to produce a desirable outcome.

XC. Empathy: The ability to consider other's feelings, situations, or needs.

XCI. Motivation: Being able to drive oneself to obtain an improved condition.

XCII. Existential intelligence: the ability to address higher abstracts such as ethics or spirituality.

XCIII. The Teacher

XCIV. The Instructor's motivation to teach.

XCV. Competency and compassion.

XCVI. Integrating the Teacher personality and stylistic preferences to the classroom.

XCVII. Modeling behaviors.

XCVIII. The teacher as a facilitator.

XCIX. Accountability.

C. The Environment

CI. Establish an effective learning environment.

CII. Keeping the experience positive.

CIII. Establish a respectful rapport with students. (Being "friendly," but not "friends.")

CIV. Denigrating students, fellow instructors, clinical partners, or administrators delegitimizes both that person and you in the student's view.

CV. Many students are unwilling to learn from someone whom they feel doesn't respect them.

CVI. The most important lesson that you are communicating is your professional attitude.

CVII. Establish a mistake-friendly environment, students learn from mistakes and self-reflection.

CVIII. When a student can accept their mistake and reflect upon it, they can form abstract conceptualizations and generalizations that will take them to the next level of competency.

CIX. When correction is needed:

CX. Correct the action quickly, and be specific.

CXI. Correct the behavior, not the person.

CXII. Praise in public, criticize in private.

CXIII. The student will be more receptive to your criticism if you:

CXIV. Tell the student what they did right; "It's good that you wanted to control the airway first."

CXV. Address the area that needs correction; "However, the adjunct you chose wasn't the proper size."

CXVI. Summarize with an optimistic and realistic overview of the student's behavior; "Keep practicing, you'll get into the habit of measuring the airway first."

CXVII. Clearly define goals and expectations.

CXVIII. Place all of your expectations and/or goals in a prominent place; syllabus, front-page of your courses web page, a poster on the wall.

CXIX. If you decide that you need to change your expectations, strive to maintain your current expectations for your existing class, and make the need corrections for the next class.
CXX. Strike a balance between flexibility and predictability
CXXI. To be too inflexible makes it difficult to address the needs of the class. Be willing to reschedule a major test if the last quiz suggests that the students aren't ready.
CXXII. To be unpredictable establishes frustration and confusion for the student. The student can't adequately prepare if you capriciously change the outcome or deadlines.
CXXIII. Scaffold your lessons.
CXXIV. Expecting students to quickly portray mastery will only confuse and frustrate the student.
CXXV. Break each subject to discrete simple lessons, and increase the level of difficulty as they demonstrate mastery of the last lesson.
CXXVI. Utilize repetition
CXXVII. Even the very attentive student takes time to internalize concepts, formulate responses, reflect upon past exchanges during a lesson.
CXXVIII. It is through repetition that the student begins to believe your message and adopt your views.
CXXIX. Maintain consistency.
CXXX. Scrupulously adhere to your first-day-handout, syllabus, or student handbook.
CXXXI. Model expected behaviors.
CXXXII. As students learn new concepts, they will adopt the instructor's attitudes towards the material so the instructor must display:
CXXXIII. NHTSA/DOT NES for Paramedic has an evaluation instrument which is used to evaluate the affective domain. A copy of this document is included in the appendix
CXXXIV. Desirable student behaviors or characteristics to reinforce include:
CXXXV. Moral integrity
CXXXVI. Strong work ethic
CXXXVII. Honesty
CXXXVIII. Courtesy
CXXXIX. Respect
CXL. Engaged and active learner (an active participant taking responsibility for their actions)
CXLI. Knowledgeable
CXLII. Competent
CXLIII. Values life-long learning
CXLIV. Are there other characteristics?
CXLV.
CXLVI. Make time for conferences and meetings outside of class time
CXLVII. Arrive at the classroom early
CXLVIII. Set up equipment and arrange room
CXLIX. Be over-prepared for the presentation
CL. Review the objectives for the course (or lesson) and compare to
CLI. Bloom's Taxonomy to determine the depth and breadth required to
CLII. meet the objective
CLIII. Refer to Module 8 for more information on the Domains of Learning
CLIV. Know the information two levels deeper than students need to know it
CLV. Because of memory degradation present more information than the objective indicates
CLVI. Have a back-up method of delivering content in case AV resources or equipment fail
CLVII. Assure that technological teaching aides are going to work on everybody's computer, browser, device, operating system, etc.
CLVIII. Distractions during delivery degrades the content
CLIX. Ask for help when needed

CLX.

CLXI. As an entry level instructor you should expect that your employer and supervisor will assist in your growth and development as an instructor

CLXII. Seek out a mentor to guide you

CLXIII. Senior instructor who models quality

CLXIV. Instructors other than EMS Instructors can be very beneficial despite curricular differences.

CLXV. If an EMS instructor, select someone with high levels of student success

CLXVI. High pass rates and/or low attrition rates

CLXVII. Remain current on skills and knowledge

CLXVIII. Experiential learning.

CLXIX. Creating a dynamic interaction that allows the student to critically think.

CLXX. Excellent opportunity to provide vibrant and permanent lessons.

CLXXI. Excellent way to imprint affective lessons.

CLXXII. Can be difficult to set up, and necessitates proctors that can react to unexpected situations.

CLXXIII. Should be utilized once you're certain that the student has the necessary skills and knowledge to manage the scenario, otherwise it will only confuse and frustrate the student.

CLXXIV. Can vary in complexity from simple scenarios to authentically staged role-playing

CLXXV. The technological assisted classroom.

CLXXVI. Flipping the classroom.

CLXXVII. In 1993 Allison King published "From Sage on the Stage to Guide on the Side," in which she advocated that classroom time be spent on the construction of meaning and not on the transmission of information.

CLXXVIII. Utilizing technology to store and present lectures before class

CLXXIX. Doing the activities, which had been traditionally the role of homework, to construct meaning follows and is done in the classroom, frequently through collaborative learning.

CLXXX. May be utilize by a school's learning management system to construct a web assisted lesson.

CLXXXI. Utilize web based resources such as Youtube, Google documents, or searching for published lectures or news articles.

CLXXXII. The physical or virtual classroom.

CLXXXIII. Considerations of the physical classroom

CLXXXIV. Clean and well-maintained.

CLXXXV. Good environmental controls.

CLXXXVI. Handicap accessible.

CLXXXVII. Proximity to food, break-room, restrooms.

CLXXXVIII. Adequate for breakout sessions and supply storage

CLXXXIX. Adequate working and appropriate equipment and supplies

CXC. Adequate lab assistants during psychomotor training

Bibliographical References

Adult Continuing Education Homepage. Retrieved from http://adulted.about.com

Davis, Barbara Gross, Wood, Lynn and Wilson, Robert; *A Berkeley Compendium of Suggestions for Teaching with Excellence*; Davis, Barbara Gross, Wood, Lynn, & Wilson, Robert. (1985) A Berkeley Compendium of Suggestions for Teaching with Excellence. Retrieved from http://teaching.berkeley.edu/compendium

Davis, Barbara Gross. (1993). *Tools for Teaching.* San Francisco: Jossey-Bass.

Difficult Behaviors in the Classroom. (n.d.). Retrieved from http://www.hcc.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/behavior.htm

Enerson Diane, Ed. (n.d.). *Teaching at Chicago: A Collection of Readings and Practical Advice for Beginning Teachers*. Retrieved from http://teaching.uchicago.edu/handbook

Harrison Cheryl. (1988). *Learning Management*. Retrieved from ERIC Digests 73 http://www.ed.gov/databases/ERIC_Digests/ed296121.html

Imel Susan. (1994). *Guidelines for Working with Adult Learners.* Retrieved from ERIC Digests 154 http://www.ed.gov/databases/ERIC_Digests/ed377313.html

Imel Susan. (1994). *Guidelines for Working with Adult Learners*. Retrieved from ERIC Digests 77 http://www.ed.gov/databases/ERIC_Digests/ed299456.html

Imel Susan. (1995). *Inclusive Adult Learning Environments*. Retrieved from ERIC Digests 162 http://www.ed.gov/databases/ERIC_Digests/ed385779.html

Imel Susan. (1995). *Teaching Adults: Is It Different?* Retrieved from ERIC Digests 82 http://www.ed.gov/databases/ERIC_Digests/ed305495.html

Johnson, David and others. (1992). *Cooperative Learning: Increasing College Faculty Instructional Productivity*. Retrieved from ERIC Digests http://www.ed.gov/databases/ERIC_Digests/ed347871.html

Kleberg, J. R. (1992). *Quality learning environments*.

Land, S. M., and Hannafin, M. J. (1996). *Student-centered learning environments: foundations, assumptions, and implications*.

O'Banion, T. & Associates. (1994). *Teaching and Learning in the Community College.* Washington, DC: American Association of Community Colleges.

Scholtes, Peter (1988). *The Team Handbook*. Madison: Joiner Associates.

Module 7: Learning Styles

Cognitive Objectives

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

1. Use his or her own words to define and describe "learning style" and "learning preference"
2. Describe 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
8. Design a seating arrangement to maximize student learning preferences
9. List the multiple intelligences identified by Gardner
10. Describe *readability*
11. Describe resources available to assist a student in increasing hs or her reading ability
12. Describe an individual needs assessment

Psychomotor Objectives

At the completion of this module the student-instructor will 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)
2. Estimate the readability of a passage

Affective Objectives

At the completion of this module the student-instructor will 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

Bibliographical Resources

Ast, H. J. (1988). *Learning styles: Implications for curriculum and instruction*.

Bishop, Jacob Lowell, and Matthew A. Verleger. "The flipped classroom: A survey of the research." ASEE National Conference Proceedings, Atlanta, GA. Vol. 30. No. 9. 2013.

Boyatzis, Richard E., Daniel Goleman, and Kenneth Rhee. "Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI)." Handbook of emotional intelligence 99.6 (2000): 343-362.

Dunn, Joe. (1994). *Reflections of a Recovering Lectureholic*. The National Teaching and Learning Forum, 3:6.

Dunn, R., Ed., and Griggs, S. A., Ed. (2000*). Practical approaches to using learning styles I higher education*. Westport: Greenwood Publishing Group.

Entwistle, N. J. (1983). *Understanding Student Learning*. New York: Nichols Publishing.

Kariuki, P. N. (1995). *The Relationship between student and faculty learning style congruency and perceptions of the classroom environment in colleges of teacher education.*

Knowles, Malcolm S. Applications in continuing education for the health professions: Chapter five of Andragogy in action. Journal of Continuing Education in the Health Professions. Volume 5, Issue 2 (April 1985): PP 80-1000.

Kolb, David A. Experiential learning: Experience as the source of learning and development. FT press, 2014.

Kritsonis, Alicia. "Comparison of change theories." International journal of scholarly academic intellectual diversity 8.1 (2005): 1-7.

Newble, D. I. & Entwistle, N. J. (1986). Learning styles and approaches: Implications for medical education. *Medical Education 20*, 162-175.

Tune, Johnathan D., Michael Sturek, and David P. Basile. "Flipped classroom model improves graduate student performance in cardiovascular, respiratory, and renal physiology." Advances in physiology education 37.4 (2013): 316-320.

Vella, Jane. Learning to listen, learning to teach: The power of dialogue in educating adults. John Wiley & Sons, 2002.

Wood, Donna. Andragogy: Appreciating the Characteristics of the Adult Learner. State Technical Institute at Memphis. Memphis Tennesse. (n.d.) https://hawaii.hawaii.edu/node/495

Wlodkowski, Raymond J., and Margery B. Ginsberg. Enhancing adult motivation to learn: A comprehensive guide for teaching all adults. John Wiley & Sons, 2017.

Module 8: Domains of Learning

Cognitive Objectives

At the completion of this module the student-instructor will 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
7. Describe methods to increase retention of learned material

Psychomotor Objective

1. There are no psychomotor objectives for this module.

Affective Objectives

At the completion of this module the student-instructor will 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 Paramedic 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

Bibliographical Resources

Anderson, C. W., & Krathwohl, D. R. Eds. (2001). *A taxonomy for learning, teaching and assessing a review of Bloom's taxonomy of educational objectives.* Boston: Addison Wesley Longman, Inc.

Bloom, Benjamin S. et al. (1956). *Taxonomy of Educational Objectives, Book I: Cognitive Domain*. New York: Longman.

Coles, C. R. (1990). *Evaluating the Effects Curricula Have on student Learning: Toward a more competent theory for medical education*.

Gagne, R. M., Briggs, L.J. (1979). *Principles of Instructional Design*. New York: Holt, Rinehart and Wilson.

Hodell, Chuck. (1997) Basics of Instructional Systems Development. *ASTD Info-line, Issue 9706*.

McClincy, William D. (1995). *Instructional Methods in Emergency Services*. New Jersey: Brady Publishers.

Whittle, J. (2001). *911 Responding for Life*. New York: Delmar Publishers.

Williams, L. (1983). *Teaching for the Two-Sided Mind*. Simon & Schuster.

Module 9: Goals and Objectives

Cognitive Objectives

At the completion of this module, the student-instructor will 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
6. Determine if an objective is missing any of the ABDC parts
7. Select appropriate action verbs to write an objective
8. Differentiate between a goal and an objective
9. Describe the role of performance objectives in evaluation

Psychomotor Objectives

At the completion of this module, the student-instructor will 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 Objectives

At the completion of this module, the student-instructor will 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

2. 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

Bibliographic References

Bloom, Benjamin S. et al. (1956). *Taxonomy of Educational Objectives, Book I: Cognitive Domain*. New York: Longman.

Hardt, U. H. (1977). *Determining goals, objectives and strategies for the domains of learning and instructional intents. A guide to lesson and unit planning*.

Hodell, Chuck. (1997) Basics of Instructional Systems Development. *ASTD Info-line, Issue 9706*.

Nooman, Z. M. Schmidt, H. G., & Ezzat E. S., Eds. (n.d.*). Innovation in Medical Education*. New York: Springer Publishing Company.

Novak, J. D. (1977). *A Theory of Education*. Ithaca Cornell University Press.

Smilkstein, R. (1993). Acquiring knowledge and using it. *Gamut*, 16-17, 41-43.

Module 10: Lesson Plans

Cognitive Objectives

At the conclusion of this module the student-instructor will 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 Objectives

At the conclusion of this module the student-instructor will 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 components presented in this module
4. Select a goal and develop a complete lesson plan that contains all three domains of learning

Affective Objectives

At the conclusion of this module the student-instructor will 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 mentor instructors

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 Education Standards (NES) 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 in Appendix

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. 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 and styles

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 exams

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, affective 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

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. Have a back-up plan in case of equipment failure

E. Decide what adjuncts will be needed in the classroom e.g., manikins, blankets, vehicles, IV arms, etc.

F. 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

F. Remember to account for time needed to practice skills.

1. Rotations are often needed for students learning multiple skills during the class session.
2. Students do not typically develop competence with new skills in a single class session. Plan time and subsequent classes as nessesary.

a.

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

2. Never use only one method of instruction.

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, these are more difficult and time consuming to grade but will provide a more comprehensive evaluation of the student's mastery of the higher levels

I. Psychomotor skills evaluation tool

1. Task-analysis

2. Incorporate skills in to an overall scenario which 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

Bibliographic References

Benefit, Arian B. (1995). Instructional Design Process: A Case Example. *Performance & Instruction*, September, 40-42.

Butruille, Susan. (1998). Lesson Design and Development. *No. 8906 ASTD*.

Carolan, Mary D. (1993). Seven Steps for Back-to Basics Training, Nineties-Style. *Training & Development, August*, 15-17.

Chapman, Bryan L. (1995). Accelerating the Design Process: A Tool for Instructional Designers. *Journal of Interactive Instruction Development,* Fall *v8 n2,* 8-15.

Evers, Linda M. (1992). Designing an Informational/Instructional Strategy. *Technical & Skills Training, November/December*, 25-31.

Filipczak, Bob. (1996). To ISD or Not to ISD? *Training. March*, 73-74.

Flannery, Timothy, J. (1995). Developing lesson plans, part 1: What do we need to teach? *Fire Engineering, Vol. 148 Issue 7.*

Flannery, Timothy J. (1995). Developing lesson plans, part 2: What is the objective? *Fire Engineering, Vol. 148 Issue 8.*

Flannery, Timothy J. (1995) Developing lesson plans, part 3: Creating the lesson. *Fire Engineering, Vol. 148 Issue 12.*

Ford, Donald J., Ed. (1997). *ASTD's In Action Series: Designing Training Programs.* Virginia: ASTD.

Gramiak, Lori H. (1995). Maintenance: The Sixth Step. *Training & Development, March,* 13-14.

Holton, Elwood F., & Bailey, Curt. (1995). Top-to-Bottom Curriculum Redesign. *Training & Development, March v49, n3*, 40-45.

Huang, Zhuoran. (1996) Making Training Friendly to Other Cultures. *Training & Development, September 1996,* 13-14.

Katz, Michael, & Rosenberg, Jacob. (1996). From Complex Expert Thinking to Lucid Learning Methods. *Performance & Instruction, July*, 12-13.

Kirkpatrick, Donald L. (1996). *Evaluating Training Programs The Four Levels*. California: Berrett-Koehler Publishers, Inc.

Moller, Leslie. (1995) Working With Subject Matter Expert. *Techtrends, November/December v40,n6*, 26-27.

Shultz, Fred, & Sullivan, Rick. (1995). A Model for Designing Training. *Technical & Skills Training, January*, 22-26.

(1995). Three Factors to Consider When Developing Courses. *Training, December*, S3.

(1997). *The ASTD Training and Performance Yearbook.* Alexandria and New York: ASTI and McGraw-Hill.

Tracey, William R. (1992). *Designing Training and Development Systems. (*3rd ed.). New York: American Management Association.

Module 11: Presentation Skills

Cognitive Objectivesl

At the completion of this module, the student-instructor will 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
6. Describe the appropriate platform skills necessary for classroom presentations
7. Describe the advantages and disadvantages for computer generated presentations
8. Describe the do's and don'ts for computer generated presentations
9. Describe advantages and disadvantages of the various audio-visual sources available
10. Describe the appropriate methid for developing an overhead from a source
11. Describe principles of an effective deliverly
12. Describe the purpose and limitation of audio-visual aids
13. Describe the method for reducing audio-visual failure
14. Describe the different types of presentations and the benefits and limitations of each

Psychomotor Objectives

At the completion of this module, the student-instructor will 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
3. Develop a computer generated presentation
4. Develop an overhead transparency
5. Demonstrate the proper use of a whiteboard or chalkboard

Affective Objectives

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

1. Value how different classroom presentation strategies enhance learning
2. Value 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

Bibliographical References

Dowling, Ellen. (1995). *The Standup Trainer*. American Society for Training and Development.

Johnson, D., Johnson, R. & Smith, K. (n.d.*). Active learning: cooperation in the college classroom.* (2nd ed.). Edina: Interactive Book Company.

MacGregor, J., Cooper, J., Smith, K., & Robinson, P. (2000*). From small groups to learning communities: Energize large classes. New Directions for Teaching and Learning*. Indianapolis: Jossey-Bass.

Pike, Robert W. (1994). *Creative Training Techniques Handbook*. Minneapolis: Lakewood Books.

MODULE 12: Evaluation Techniques

Cognitive Objectives

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

1. Differentiate *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. Describe specific types of test items and the advantages and disadvantages of each
5. Describe general guidelines for test construction
6. Describe *reliability*
7. Describe *content validity*
8. List several examination resources
9. Describe *item analysis*
10. Describe *item difficulty* and *discrimination*
11. Identify causes for negative discrimination
12. Describe *test blueprinting*
13. Differentiate *norm-reference* and *criterion-referenced* evaluations
14. Describe and calculate the cut score of a test item
15. Describe and calculate an *average* or *mean*
16. Describe the term *standard* as it relates to evaluation
17. Describe *inter-rate reliability*

Psychomotor Objectives

At the completion of this module, the student-instructor will 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
3. Develop an observation report to evaluate affective objectives
4. Develop a blueprint for a cognitive examination
5. Given a set of student results on an examination, calculate an item's difficulty and discrimination
6. Perform a psychomotor and affective evaluation
7. Given an objective, write a multiple choice question that will evaluate the student
8. Given a test item, determine the specific level of Bloom's Taxonomy the question is assessing
9. Estimate the reading level of a test item
10. Develop a clinical evaluation tool

Affective Objectives

At the completion of this module, the student-instructor will 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
3. Value the importance of providing the student wil the most valuable and reliable evaluation tool possible

Declarative

XVII. Why this module is important

1. Without a mechanism to evaluate the student you will never know if you have achieved the objectives and goals of instruction
2. The evaluation process helps determine strengths and weaknesses of students and your program
    a. Program evaluations help improve the quality of the instruction
    b. Student evaluations help determine whether students are progressing satisfactorily
    c. 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
3. 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

a. 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

XVIII. Evaluation

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

XIX. Purpose of evaluation

1. Provide feedback to student on progress or performance
2. Provide student gratification and motivation to succeed
3. Measure effectiveness of teaching style and content of lesson
4. Measure effectiveness of the educational program in meeting written goals and objectives

XX. Formative evaluation

1. Ongoing evaluation of the students and instruction conducted throughout the course
    a. Compare the overall goal of instruction, lesson objectives and the content to the performance by the students
    b. 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
2. Formative evaluation is important in gaining insight early in the program
    a. Use this information to make changes in the program, to provide remediation, or to redirect presentations
3. Methods of performing formative evaluation during a course or class
    a. Module or section testing within a larger topic area is a form of formative evaluation
    b. "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

c. 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

XXI. Summative evaluation

1. Summative evaluation is performed at the completion of the delivery of a larger section of material, a module or program
2. Provide feedback to the students of their successful mastery of the content
3. Determine the effectiveness of teaching strategy and to improve future teaching performance
4. Methods of performing summative evaluation during a course or class
    a. Survey tools
        a. Gather opinions about various aspects of the course and instruction
    b. Comparison of course and program outcomes
        a. Determine if all goals and objectives were met
    c. Final examinations: practical and written
    d. 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
5. A formative evaluation can also be summative
    a. 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

XXII. Formal and informal evaluation

1. Both formal and informal strategies are critical to the success of courses and programs
2. Some of the evaluation strategies listed can be conducted formally or informally
3. Formal evaluation
    a. A structured instrument to assess student's attainment of interim and/or terminal course objectives
    b. A formal written examination can determine a grade for a course or serve as a means to continue in the program
    c. 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
    d. 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
4. Informal evaluation
    a. Less structured method of assessing student achievement used primarily to provide corrective feedback to both the student and instructor
    b. Informal evaluation tools may not be graded or the instructor may not record the grades
    c. Student benefit: identify weakness (and strengths) and offer suggestions for improvement; may serve as a "wake-up" call
    d. Instructor benefit: compare results from the class to identify trends and problems and to develop corrective instruction or remediation
    e. If the instructor makes an evaluation informal it may cause conflict when students have the expectation of a formal evaluation
5. Problems with formal evaluation techniques
    a. May not allow for remediation or retraining
6. Problems with informal evaluation techniques
    a. 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

XXIII. Written examinations

1. Types
    a. Multiple choice
    b. True/false
    c. Matching
    d. Completion
    e. Essay
    f. Terminal/certifying
2. Terminology
    a. 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
    b. 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"
    c. Distracter: an answer to a test question that is a false or incorrect answer designed to be a plausible alternative to the correct answer
    d. Key: the correct (or best) answer to the item
3. Source of test items: the course and lesson objectives
    a. 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
4. Advantages of written examinations
    a. Can be used with a large number of students
    b. Measures cognitive objectives
    c. Provides for consistent scoring
    d. Grading and compiling result is quicker than for other types of examinations
5. Disadvantages of written examinations
    a. Time consuming to develop
        a. Difficult to develop adequate measurements for the higher order levels of the domains of learning

b. Complex validation procedures

c. 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

d. 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

XXIV. General guidelines for written test item construction

1. Test must be related to objectives and developed from a blueprint

a. 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

2. Exam must be an appropriate type

a. 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

b. 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

3. Organize exam in a logical manner

a. Group like items (similar content area) together on a written exam

b. Have questions follow a linear or logical sequence in an oral or situational (scenario based) examination

4. If timed, allow an appropriate amount of time to answer questions or perform a skill
    a. 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
    b. 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
5. Provide clear complete directions about the test
    a. Can or cannot write on the test
    b. Use a pencil to fill in the answer sheet
    c. Time limit
    d. Whether or not breaks will be allowed during the test
6. Have another instructor review the examination for clarity and completeness
    a. Be sure exam is legible, free of typographical, grammatical, spelling and content errors
7. Be consistent in the design strategies you are using for the graphics (fonts) on a written examination
    a. 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
    b. Be consistent in the use of punctuation
    c. Use a consistent strategy to draw attention to material in the test
        a. Be consistent with the use of underline, bold or italics
    d. 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

XXV. Specific types of written test items: multiple choice

1. Common method of conducting formal and informal evaluation
2. Written national and state certification and licensing examinations are multiple choice

XXVI. Limitations of multiple choice questions

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

XXVII. Specific types of written test items: true/false

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

XXVIII. Specific types of written test items: matching

1. 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
2. Limitations
    a. Works best with definitions and terms or with simple concepts with obvious relationships
    b. Difficult to properly design
        a. Multiple matches may be possible within the columns
    c. 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
    d. 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

XXIX. Specific types of written test items: completion

1. Fill-in-the-blank
2. Statements with part of their information omitted so student must complete the statement
    a. 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

XXX. Specific types of written test items: essay

1. Short answer

a. Requires a bulleted list of responses or several questions to complete

2. Long answer

a. Requires students to provide a lengthy prose style answer

3. Limitations of both types

a. May not be effective for measuring the lower levels of the domains of learning

b. 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

c. Students often write illegibly because of time pressure or may try to add information at the end making the response difficult to follow

d. Some students thought processes do not flow easily a linear progression causing an unfair disadvantage in a timed test

e. Students may include much more information than desired in an attempt to be thorough

f. 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?

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

1. Final summative examination with the intent of granting permission to attempt a licensing or certifying examination

a. Most often a multiple-choice examination

2. 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

a. 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

XXXII. Post written examination quality review by students

1. Will students be allowed to retain the test?

a. Advantages

a. Provides a learning aid for later testing

b. Provides examples of your style of question writing

b. Disadvantages

a. Generally eliminates the test (and maybe all of the questions) from reuse

2. Allow students the opportunity to review the test

a. Highlights areas of weakness for further study and remediation

b. Highlights areas of weakness in the presentation of the material

c. Can help control bias or discrimination concerns when students see what other students missed

d. Promotes a climate of fairness when students can challenge questions, answers, or the wording of a question

e. Can be used as a learning aid for both the student and instructor

XXXIII. Post written examination quality review by faculty

1. Compile the results, including an accounting of incorrect answers

2. If the upper one-third of the group missed a specific item determine the following:
    a. Is the test item keyed correctly?
    b. Is the test item constructed properly?
    c. Is it free from bias, confusion and errors in grammar and spelling etc.?
    d. Was the content covered in class?
        a. If not, were the students directed to it through self-study?
3. If the lower one-third of group missed a specific item:
    a. 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

XXXIV. Oral examinations

1. Exams in which both questions/instructions and answers are given out loud by a student to an instructor, or group of instructors
2. Advantages
    a. Evaluates "quick thinking" or reactions
    b. Evaluates the student's thought processes
    c. Can be evaluated by multiple listeners simultaneously
3. Disadvantages
    a. Limited number of students may be examined at any one time
    b. Difficult to standardize
    c. Examiner may unintentionally give clues to the examinee
    d. Time-consuming and labor-intensive
    e. Subjective
    f. 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

XXXV. Project assignments

1. Advantages
    a. Allows independent completion
        a. May be done during class or outside of class
    b. Evaluates ability to synthesize data
    c. 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
    d. 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
2. Disadvantages
    a. Difficult to standardize
    b. Possible plagiarism
    c. 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
    d. When group members are not working together it places unfair workloads on the members who are contributing

XXXVI. Observational reports

1. Advantages
    a. Can be used for psychomotor or affective evaluation

b. Reliability is inherent due to repeated observation

a. Reliability can be increased by increasing the number of observations

2. Disadvantages

a. 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

b. Time-consuming and labor-intensive

a. Frequently a one-on-one experience

c. Developing criteria can be a complex task

d. Experiences may not be available at the time they are required

a. Student attends a clinical setting and there are no patients

XXXVII. Practical examinations

1. Two basic types: situational and rote

a. 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

b. Rote: demonstration of the steps of performing a skill independent of manipulation of outcomes

a. Generally follows very specific order of steps

2. Advantages

a. Most closely approximates actual job performance

b. Allows observation and evaluation of related behaviors and attitudes

c. Allows evaluation of psychomotor skills, decision-making abilities and leadership skills

3. Disadvantages

a. Difficult to standardize

b. Time-consuming and labor-intensive to prepare and deliver

c. Limited number of students may be examined at one time

d. Instructor providing feedback needs to be clear about expected outcome, whether a situational or rote response is required, and should evaluate accordingly

XXXVIII. Practical skills evaluation

1. Rote mechanical skill
    a. Requires simple task analysis
    b. Is the easiest skill examination to administer
    c. 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
2. Situational skills
    a. Evaluates judgment and/or decision-making
    b. Required more elaborate simulations
    c. More difficult to develop and deliver
    d. 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

XXXIX. Simple skill evaluation

1. Define the skill
2. Determine the degree of expected proficiency
3. Select a representative sampling if all skills in a given area are not evaluated
4. Create a written task analysis of the skill if one does not already exist
5. Develop checklist commensurate with the task analysis
    a. Each step should contain some measurable criteria so all evaluators can agree on criteria of successful completion of each step
    b. Look for established standards (i.e. National Registry Practical Skills Examination Sheets) for guidance
    c. 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

XL. Performance evaluations

1. Determine and define expected outcome

a. Are skills performance or decisions-making process more important in the situation?

b. How stressful or complicated a situation is the student prepared to handle?

2. Determine what standards will be used to evaluate the performance

    a. Design the situation to be representative of the desired outcome: realistic environment, realistic patient complaints and injuries, manikins vs. real people

3. Evaluate the resources needed for testing

    a. The higher the domain level the more realistic the scenario should be

    b. Simulate situation and responses as accurately as possible

4. List all activities which should be completed in the situation

    a. Prioritize activities and list them in their linear (start-to-finish) sequence

    b. Weigh most important aspects and critical criteria appropriately

    c. 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

    d. 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

    e. 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

XLI. Characteristics of skill/performance evaluations

1. Objectively measures the performance

    a. By the instrument

b. By the observer

2. Replicability

    a. 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?

3. Fair standards

    a. Standards are known by student and faculty

    b. Practice with similar instrument during the training session

4. Realism

    a. Situations, scenarios, and patient information are plausible

    b. Reactions or changes in the patients are realistic given the intervention and treatment

    c. External distractions are realistic

    d. Stress is similar to work environment

XLII. Reliability

1. The extent to which an exam is consistent in measuring student performance
2. Does it measure a behavior or body of knowledge consistently on different occasions?
3. Does the environment influence consistency?
4. Do different administrators influence results?
5. Does it discriminate against groups or individuals?

XLIII. Content validity

1. 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
2. Are the sub-tests weighted and distributed properly?

    a. Do they place an over importance on a single test?

        a. Is that your intent?

3. Does it cover a reasonable sample of the knowledge and skill objectives?
4. Is it an accurate predictor of field performance?

XLIV. Resources for examinations

1. Peer instructors within your organization may be a good source for examinations of all types
2. Formalized instruments from certification and licensing bodies (which may also be validated instruments)
3. Jurisdiction or state EMS office
4. National Registry of EMTs for sample multiple choice items, practical skills, and oral examinations
5. Written examination resources
    a. NREMT
    b. Publishers test banks
    c. EMS textbooks
    d. EMS textbook instructor guides
    e. Textbooks of practice certification examinations
    f. On-line and computer based practice certification tests
    g. EMS Internet sites
6. Practical examination resources
    a. NREMT
    b. NAEMSE
    c. EMS Internet sites
    d. EMS textbooks
    e. EMS continuing education programs
7. Oral examination resources
    a. NREMT
    b. NAEMSE
    c. EMS Internet sites
8. Project assignments
    a. NAEMSE
    b. EMS textbook instructor guides
    c. College or university resources

d. Learning styles / preferences information with practical application suggestions

Bibliographical References

American Psychological Association. (n.d.). *Standards for education and psychological tests*. (revised ed.). Washington D.C.: American Psychological Association.

Burba, A.C. (1998). Multiple Choice Item Writing. *Domain[3], Winter 1998*.

Johnson, D. W., & Johnson, R. T. (1996*). Meaningful and manageable assessment through cooperative learning.* Edina: Interactive Book Company.

Judd, R. L. (1998) The Pedagogue's Column The Matter of Advising on Test Construction. *Domain[3], Winter 1998*.

Merwin, S. (1992). *Evaluation: 10 significant ways for measuring and improving training impact.* Resources for Organizations, Inc.

Waagen, A. (1997). Essentials for evaluation. *ASTD, Issue 9705*.

Module 13: Facilitation Techniques

Cognitive Objectives

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

1. Use his or her own words to provide a description of facilitated learning
2. Explain 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
10. Describe characteristics of the adult learner
11. Describe *transference*

Psychomotor Objectives

At the completion of this module the student-instructor will 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. Facilitate a classroom activity, utilizing learning principles in this module to achieve (a) psychomotor objective(s)
3. Facilitate a classroom activity, utilizing principles in this module to achieve (an) affective objective(s)

Affective Objectives

At the completion of this module the student-instructor will 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 conduct a 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

Bibliographic References

Johnson, Johnson & Smith. (1998). Maximizing instruction through cooperative learning. *AAHE Prism, February*.

Norman, G. R. & Schmidt, H. G. (1992). The psychological basis of problem-based learning: A review of the evidence. *Academic Medicine 67 (9),* 557-565.

Rideout, E. (2001). *Transforming nursing education though problem-based learning*. Sudbury: Jones and Bartlett Publishers.

Springer, Stanne & Donovan. (1999). *Review of Educational Research*.

Module 14: Communication and Feedback

Cognitive Objectives

At the completion of this module the student-instructor will 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
8. Describe the principles of providing corrective feedback
9. Compare and contrst feedback and evaluation
10. Describe the principles involved in the use of questioning in the classroom

Psychomotor Objectives

At the completion of this module the student-instructor will 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 Objectives

At the completion of this module the student-instructor will 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
4. Value the importance of allowing a student to be successful when asked a question

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

Bibliographic References

Adler, Rosenfeld and Towne. (1983*). Interplay, The Process Of Interpersonal Communication.* New York: Reinhart and Winston.

Resurreccion, R. (1995). Coaching and Counseling Skills*. Education and Training for Work.*

Stritter, F. & Flair, M. (1980). *Effective Clinical Teaching*. Bethesda: US Department of Health, Education and Welfare.

Weider-Hatfield. (1981). A unit in conflict management skills*. Communication Education, 30*, 265-273.

Module 15: Motivation

Cognitive Objectives

At the completion of this module the student-instructor will 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 Objectives

At the completion of this module the student-instructor will 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 Objectives

At the completion of this module the student-instructor will 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 of him or her

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

Bibliographic References

Cherry, Richard. (1990) Keeping the Spark Alive. *JEMS*, *March* 62-65.

Cornwell, J.B. (1996) Stimulating and Managing Participation in Class. *Training*.

Lin, Y. & McKeachie, W. J. (1999). *College student intrinsic and/or extrinsic motivation and learning*. Washington, DC: American Psychological Association.

McClelland, D. C., (1987). *Human Motivation*. New York: Cambridge University Press.

Pike, Robert. (1994). *Motivating Your Trainees*. Minneapolis: Lakewood Publications.

Module 16: Teaching thinking skills

Cognitive Objectives

At the completion of this module the student-instructor will 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 Objectives

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

1. Develop a situation that requires the students to role play the situation using high-level thinking skills

Affective Objectives

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

1. Value 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

Bibliographic References

Ausubel, D., Novak, J. D. & Hanesian, H. (1978*). Educational Psychology: A cognitive view*. New York: Holt, Rinehart, and Winston.

Beyer, B. (1997). *Improving Student Thinking: A Comprehensive Approach*. Boston: Allyn and Bacon.

Browne, M., & Keeley, S. (1998). *Asking the right questions: A guide to critical thinking* (5th ed.). Englewood Cliffs: Prentice-Hall.

Chickering, A. W. & Gamson, Z. F. , Eds. (1991*). Applying the Seven Principles for Good Practice in Undergraduate Education. New Directions for Teaching and Learning*. San Francisco: Jossey-Bass.

Dalton, A. (1996). Enhancing critical thinking in paramedic continuing education. *Prehospital and disaster medicine, 11(4),* 246-53.

Diestler, S. (1998). *Becoming a critical thinker* (2nd ed.). Upper Saddle River: Prentice-Hall.

Ennis, R. (1996). *Critical thinking*. Upper Saddle River: Prentice-Hall.

Halpern, D. (1996). *Thought and knowledge: An introduction to critical thinking*. Hillsdale: Lawrence Erlbaum.

Langer, E. (1997). *The Power of Mindful Learning*. Reading: Addison-Wesley.

Manning, B., & Payne B. (1996). *Self-talk For Teachers And Students: Metacognitive Strategies For Personal And Classroom Use*. Boston: Allyn and Bacon.

Novak, J. (1998). *Learning, Creating Using Knowledge*. Hillsdale: Lawrence Erlbaum Associates.

Parnes, S. (1997). *Optimize the magic of your mind*. Buffalo: Bearly Limited.

Springer, Stanne & Donovan. (1999). *Review Of Educational Research*.

Tishman, S., Perkins, D., & Jay, E. (1995). *The Thinking Classroom: Learning and Thinking in a Thinking Culture*. Boston: Allyn and Bacon.

Treffinger, D. (1995). *Creativity, Creative Thinking, And Critical Thinking: In Search Of Definitions*. Sarasota: Center for Creative Learning.

Treffinger, D., Feldhusen, J., & Isaksen, S. (1996). *Guidelines For Selecting Or Developing Materials To Teach Productive Thinking*. Sarasota: Center for Creative Learning.

Treffinger, D., Isaksen, S., & Dorval, K. (1996). *Climate For Creativity And Innovation: Educational Implications*. Sarasota: Center for Creative Learning, Inc.

Module 17: Teaching Psychomotor Skills

Cognitive Objectives

At the completion of this module the student-instructor will 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
6. Differentiate between a *scenario* and *simulation*
7. Describe the proper techniques and principles of moulage
8. Describe the principles to developing an proctoring a scenario or simulation
9. Describe a *task analysis*
10. Describe the proper use of teaching assistants in developing practical skills

Psychomotor Objectives

At the completion of this module the student-instructor will 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
5. Moulage a simulates patient
6. Develop and proctor a simulation scenario
7. Develop a task analysis sheet for an EMS skill

Affective Objectives

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

1. Value 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

Bibliographic References

Burke, J. Ed. (1989). *Competency-based Education and Training*. New York: The Falmer Press.

Kolb, D. A. (1984). *Experiential Learning*. (1984). New York: Simon & Schuster Trade.

Millis, B., & Cottello, P. (1998). *Cooperative Learning For Higher Education Faculty*. Phoenix: Oryx Press.

Watson, A., (1980). *Learning psychomotor skills in TAFE. Educational Psychology for TAFE Teachers*.

Module 18: Affective Domain

Cognitive Objectives

At the completion of this module the student-instructor will 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
5. Describe methods to evaluate and provide corrective action for the affective domain
6. Describe Maslow's Hierarchy of Needs and how it pertain to EMS education

Psychomotor Objectives

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

1. Develop a session that teaches and evaluates the affective domain

Affective Objectives

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

1. Value the need to teach and evaluate 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

Bibliographic References

Archer, Patricia. (1979). *Student Behavior and Attitudes: The Affective Domain*. Texas.

Belcher, A., & Sibbald, R. (1998). Mentoring: The Ultimate Professional Relationship. *Ostomy and Wound Management, 44:4.*

Eiss, A. F., Harbeck, M. B. (1969). *Behavioral Objectives In The Affective Domain*. Washington, DC: NEA Publication Sales.

Goleman, Daniel. (1998). *Working with Emotional Intelligence*. New York: Bantam Books.

Main, R. G. (1992). *Integrating The Affective Domain Into The Instructional Design Process.*

Pike, Robert W. (1994). *Creative Training Techniques Handbook* (2nd ed.). Minneapolis: Lakewood Books.

Price, E. A. (1998) Instructional Systems Design And The Affective Domain. *Educational Technology, v38 n6*, 17-28.

Walsh, A., & Borkowski, S. (1999). Mentoring in Health Administration: The Critical Link in Executive Development. *Journal of Healthcare Management*, *44:4.*

Module 19: Discipline

Cognitive Objectives

At the completion of this module the student-instructor will 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
7. Describe the importance of proper documentation regarding disciplinary actions
8. Given a disciplinary situation, describe the appropriate participation of each education team member.

Psychomotor Objectives

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

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

Affective Objectives

At the completion of this module the student-instructor will 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 Objectives

At the completion of this module the student-instructor will 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
5. Describe *mega-cognition* and *self-efficacy*
6. Describe program evaluation and program remediation

Psychomotor Objectives

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

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

Affective Objectives

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

1. Value the need to assist student in becoming independent self-directed learners
2. Value the importance of viewing remediation as a positive event

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 self management

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

Bibliographical References

Cicchetti, George. (1990*). Cognitive Modeling And Reciprocal Teaching Of Reading And Study Strategies*. Watertown: Cicchetti Associates.

Collinson, Vivienne. (1996). *Reaching Students Teacher's Ways of Knowing*. Thousand Oaks: Corwin Press, Inc.

Mayer, R. E. (1998). Cognitive, metacognitive and motivational aspects of problem solving. *Instructional Science, v. 26, number 1-2*, 49-63.

Robinson, D. G., & Robinson, J. C. (1996). *Performance consulting Moving beyond training*. San Francisco: Berrett-Koehler Publishers.

Module 21: Cultural Awareness

Cognitive Objectives

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

1. Use his or her own words to define and describe cultural awareness
2. Describe how 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 Objectives

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

1. Develop and role play a situation that will enhance understanding of cultural awareness

Affective Objectives

At the completion of this module the student-instructor will 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 and appreciation 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. Childcare 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

Bibliographical References

Andrews, M.M., & Boyle, J.S. (1995). *Transcultural Concepts in Nursing Care* (2nd ed.). Boston: Scott, Foresman.

Bullock, K.A. (1997). Shades of the Rainbow. *Emergency Medical Services* (October): 28-33.

Galanti, G. (1997). *Caring for Patients from Different Cultures: Case Studies from American Hospitals*. (2nd ed.). Philadelphia: University of Pennsylvania Press.

Gardenswartz, L., & Rowe, A. (1998). *Managing Diversity in Health Care*. San Francisco: Jossey-Bass.

Gardenswartz, L., & Rowe, A. (1999). *Managing Diversity in Health Care Manual: Proven Tools and Activities for Leaders and Trainers*. San Francisco: Jossey-Bass.

Gropper, R.C. (1996). *Culture and the Clinical Encounter: An Intercultural Sensitizer for the Health Professions.* Yarmouth: Intercultural Press.

Leininger, M. (1978). *Concepts, Theories, and Practices*. New York: John Wiley.

Oosterwahl, G. (1995). *Community in Diversity: A Workbook*. Benton Harbor: Patterson.

Paniagua, F.A. *Assessing and Treating Culturally Diverse Clients: A Practical Guide*.

Spector, R.E. (1996). *Guide to Heritage Assessment and Health Traditions*. Stamford: Appleton and Lange.

Spector, R.E. (1996). *Cultural Diversity in Health and Illness*. (4th ed.). Stamford: Appleton and Lange.

Module 22: Teaching Resources

Cognitive Objectives

At the completion of this module, the student-instructor will 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 Objectives

At the completion of this module, the student-instructor will 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 Objectives

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

1. Value why it is important for EMS instructors to seek a mentor

2. Value 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)

1. This organization develops standards

B. Department of Labor

1. EMS task analysis

2. Some standards and guidelines

3. Curricula

C. Department of Energy

1. Curricula: transportation of hazardous materials and radioactive materials

D. Centers for Disease Control

1. For infectious disease (ID) curricula materials

2. Many provided as text, PowerPoint® and Adobe Acrobat® files as free non-copyrighted materials

3. Email listservers provide access to updated reports and news items free of charge

E. Occupational Safety and Health Administration

    1. For ID and worker safety standards and guidelines

    2. Curricula

F. Federal Emergency Management Agency

    1. Standards and guidelines

    2. Curricula: disaster management, mass casualty, etc.

G. Department of Transportation: National Highway Traffic Safety Administration (NHTSA)

    1. National Standard Curricula for all levels of EMS provider including refresher training and instructor training curricula

    2. Many resources provided as text, brochures and computer based presentations

    3. Many provided free of charge

H. US Department of Health and Human Services

    1. Pediatric curricula

    2. Family support services materials

    3. General health data and epidemiological resources

I. Emergency Medical Services for Children

    1. Pediatric curricula (PEPP and others)

    2. National clearinghouse for pediatric resources

    3. Many resources provided as text, brochures and computer based presentations

    4. Many provided free of charge

J. National Registry of EMTs

    1. Private organization that is a national licensing body for EMS that many states participate in

    2. Practical skills sheets that detail many EMS skills

    3. Available on-line free of charge

    4. Practice tests (computerized and "correspondence type")

IX. Allies or mentors may be found within other public service agencies

A. Fire service based

1. National Fire Academy

2. International Fire Service Training Instructors

B. Police based

1. NFPA

X. National EMS professional associations

A. NAEMT

B. Unions accepting EMS workers

C. National EMS educational organizations

1. NAEMSE

2. Sub-groups within other EMS organizations

XI. Groups focusing on EMS administration

A. NASEMSTC

B. National EMS State Directors

C. AAA – American Ambulance Association

XII. Other groups that may be useful sources of information

A. Physician based groups

B. Nursing and allied health groups with EMS focus

C. Individual state EMS educators' association

XIII. Groups with established training programs (continuing education)

A. AHA: ACLS, BCLS, PALS, AED

B. ARC: BLS, AED

C. ATLS

D. BTLS International: BTLS, PBTLS, Access

E. Wilderness Medic

F. Farmedic

G. AMLS

H. PHTLS (including combat Medic module)

I. Pediatric Education for Prehospital Professionals (PEPP)

J. Traumatic Brain Injury Program

K. Other programs also exist and more are being added all the time

1. Many of these programs, or parts of these programs may be available for you to use even if you are not offering the course for certification

XIV. Accrediting bodies

A. CAAHEP – Commission for the Accreditation of Allied Health Education Programs

B. CoAEMSP – Committee on Accreditation of EMS Programs

C. CECBEMS – Continuing Education Coordination Board for EMS

D. College and university accrediting boards and groups

1. Accreditation for Internet based programs and schools

a. Scrutinize these groups closely to determine who they are

b. College and university accrediting bodies may know of these groups

XV. Internet based resources

A. Evaluate site for bias, quality, and age of the material

B. List of Internet addresses with free resources (attachment 3)

XVI. Medical and EMS trade journals and magazines

A. Peer reviewed is generally the most scientific

1. Many are devoted to sub-specialties of EMS like rescue, administration, legal issues, etc

B. Continuing education resources

1. Refer to previous list

2. CECBEMS is one of several organizations that accredits continuing education offerings by organizations

3. State EMS agency may have a process or standard in place for quality assurance

XVII. Refresher training

A. NREMT has a standard in place that many states follow

B. Publishers of EMS and health related materials have resources

C. Test banks - may be provided when an institution purchases a large volume of texts

D. Instructor resource guides - often include lesson plans, outlines, lecture aids (e.g., computerized presentations, handouts, overheads, etc.)

XVIII. Skill sheets

A. May accompany textbooks

B. Downloadable from some websites (e.g., NREMT)

XIX. Computerized and multimedia resources

A. Realistic looking and reacting manikins

B. Videotapes

C. Audiotapes

D. CD-Rom, DVD, and other technology based programs with case studies, simulations, games, and learning content

XX. Moulage kits

A. Available from medical appliance manufacturers

B. Build your own

C. Keep an eye out for old clothes, toys and discarded items to use in your own kit

D. Yard and garage sales, and thrift shops

E. Buy make-up from a clearance bin or after holidays like Halloween when it is significantly marked down

F. Attend a class on theatrical make-up or moulage techniques

G. Develop a relationship with a local theatre group

H. Local mortuary may be a resource for make-up and a make-up artist

XXI. Your medical director is one of your best resources

A. He or she should be involved in your program and course design and development

B. He or she should be visiting regularly with your students

C. He or she may also be called upon to teach in your program, but remember, being a medical director does not mean instructional ability

XXII. Other faculty members in your program

A. A team approach leads to the best students

B. Other instructors help solve problems and may have a better perspective on an issue

C. They may have resources to share or teaching tips and tricks

XXIII. Your clinical preceptors as a resource

A. The integration of the clinical aspects of your program with the didactic is critical to a successful program

B. Provide preceptors with a written feedback tool

C. Use preceptors' opinions as a measure of the success of the delivery of content

D. Invite preceptors to participate in meetings and decision making

E. Affective domain evaluations on students should be completed by preceptors

XXIV. Your program advisory board

A. You may have access to the members of your program's advisory board (or some other group of individuals who have been brought together to provide guidance to your program)

B. These individuals are generally representing groups and agencies that work closely with your students

C. They can be valuable sources of information for you as you plan instruction or can provide feedback on how your students are performing on the job

D. This group should meet at least annually to review the success of the program (e.g., review testing results) and should recommend curriculum changes when appropriate

XXV. Graduated students and communities of interest surveys

A. Surveys allow graduates to provide anonymous feedback about the program

1. Did the program adequately prepare them for testing and working as a Paramedic?

B. Surveys of EMS agencies in your service area allow employers to provide anonymous feedback about interns and graduates now employed by them

XXVI. The role of community service in professional development

A. Fulfills the mission of the EMS Agenda for the Future

B. Provides public education on injury prevention

C. Providing presentations to public groups allows you to hone your presentation skills in a less threatening environment than the EMS classroom

    1. Provides growth opportunities for students as well

D. Provides an opportunity to educate the public about our mission

E. Helps us develop or maintain a positive image with the public

F. You have the opportunity to "give something back" to the EMS community when you volunteer to help out at an EMS course

G. May develop new markets for EMS by making the public aware of the depth and breadth of knowledge in EMS

Module 23: Research

Cognitive Objectives

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

1. Describe the nature and characteristics of research as it relates to the practice of EMS
2. Describe the common types and methods of conducting research
3. Distinguish between the different types of research commonly conducted in the EMS setting
4. Explain how research studies are designed and conducted
5. Describe methods used to read the research literature with understanding
6. Identify sources for locating relevant research materials and findings

Psychomotor Objectives

There are no psychomotor objectives for this section

Affective Objectives

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

1. Defend the importance of teaching research methods in the curriculum
2. Value the importance of research in the clinical and educational settings of EMS
3. Value the need to assist in the research process and data collection activities
4. Explain the value of research to the EMS provider and the EMS Educator

Declarative

I. Why this module is important

   A. The professional literature of EMS is expanding every year

      1. Most of that literature deals with research results

   B. Historically, EMS have relied on observation and common sense approaches to treatment and clinical interventions

      1. Currently the focus is on scientific evidence to determine the efficacy of treatment and clinical interventions

   C. EMS educators should design and conduct educational research that forms a scientific basis for instructional methodologies and interventions dealing with EMS education settings

   D. EMS providers and educators should be familiar with research

1. Should participate in research

2. Possess an understanding of the basic tenets of the research process

    a. Instill knowledge about and appreciation for the research process in students

    b. Model appreciation of benefits of research

        i. Participating in and design research projects for clinical and education practice

E. Research is a tool

1. Allows our profession to expand and provides for meaningful advancement of knowledge in EMS education and practice

2. Responsibility of professional EMS educators to strive to understand what leads to student's success, retention of information, retention of skills and transference of classroom experiences into successful clinical experiences and career satisfaction

II. Overview of EMS research

A. EMS Agenda for the Future

B. Revision of BLS and ALS curricula

C. NAEMSE Educator NSC development

III. The nature of research

A. Research should be empirical, valid, reliable and follow a scientific method

B. Empirical

1. Empiricism is the doctrine that all knowledge is derived from experience

2. Evidence derived from research is in the form of some type of data

3. Research is directed towards one of two outcomes

    a. Extension of existing knowledge

    b. The solution of an existing problem

C. Validity

1. Internal validity: The extent to which the results can be accurately interpreted External validity: The extent to which the results can be generalized to populations

D. Reliable

1. Consistency of the study
2. Ability of other researchers to replicate the study
3. Necessary for validity

E. Systematic in approach

1. Scientific method
    a. Identification of problem
    b. Reviewing of existing information related to problem
    c. Collecting data
    d. Analyzing data
    e. Drawing conclusions from data
2. EMS research should be systematic
    a. Systematic research increases both the reliability and validity of the findings

IV. Activities in the research process

A. Identification of the research problem

B. Hypothesis are generated (tentative guesses about what is being studied)

1. Review of the existing literature (to determine what others have done and how they designed their research)
2. Identification of what data will be collected (variables of the study)

C. Data collection

1. The experiment is conducted at this point and observations are made
2. Data is assembled and prepared for analysis

D. Analysis

1. Data are summarized
2. Statistical analysis is conducted

E. Summarize results and draw conclusions

1. Conclusions drawn as to how the results relate to the research problem
2. Conclusions drawn as to how the results relate to the existing knowledge
3. Possible explanations of the results are provided

V. Classification of research

A. Basic research

1. Primary purpose is the extension of knowledge

B. Applied research

1. Primary purpose is the solution of an immediate problem

VI. Qualitative research

A. Conducted for the purpose of understanding social phenomena

B. Relies on the researcher inclusion in the situation being studied

C. Relies on narrative descriptions

VII. Quantitative research

A. Conducted to determine the relationship and effects and causes of the relationship

B. Relies on statistical results represented as numbers

C. This is the type of research most often conducted in EMS clinical and educational settings

D.

VIII. Experimental research

A. A type of quantitative research

B. Involves situations in which at least one variable is deliberately manipulated or varied by the researcher to determine the effects of the variation

1. The researcher determines the variable and the extent to which it will be varied

2. Possible to have more than one variable in an experiment

C. Participants are randomly assigned to groups

D. Researcher controls all of the factors that could bias or slant the outcome of the experiment

E. Considered the "gold standard" for clinical research design

1. Virtually impossible to conduct in true emergency settings, since it requires withholding of standard treatment from a randomly selected patient

2. This research design has a high probability of producing valid and correct findings

IX. Quasi-experimental research

A. Similar to experimental research, but the participants are in naturally assembled groups, for example, a paramedic class

B. Not conducted in a laboratory but in a natural setting

C. Results are less straightforward than true experimental research and more susceptible to ambiguity when interpreted

X. Survey research

A. Deals with the incidence, distribution and relationships between educational, psychological and sociological variables

B. No experimental variables are manipulated

C. Variables are studied as they exist in a natural situation

XI. Understanding the components of a research article

A. Introduction section

1. Defines the topic being investigated in clear specific terms

2. Terms used in describing the research problem are defined

B. Review of the literature

1. Provides the background and context for the research problem

2. Establishes need for further research in the area

3. Establishes that the researcher has a good understanding of the topic to be researched

C. Methods

1. The heart of the research project

2. Describes the measurement instruments used or developed.

3. Describes the individuals participating in the research (subjects.)

4. Describes the sample (design and numbers.)

5. Describes the data collection methods

6. Describes the specific data analyses methods used

D. Results

1. The products of the data analyses

2. Descriptive statistics

E. Conclusions

1. Identifies all noteworthy results

2. Interprets results relative to the research problems and in the context of related research and theory to draw conclusions

3. Explains any inconsistency

4. Discusses the limitations of the study

5. Identifies directions for future research

6. Address the degree to which the results of the study can be generalized to a larger population or group

XII. The role of statistical analysis in the research process

A. Descriptive statistics

1. Summarize or describe the characteristics of a set of data in a clear and convenient manner

a. Example: your grade point average is a convenient summary of all the grades you received in school

B. Inferential statistics

1. Makes it possible to draw inferences about what is happening in the entire population based on a sample from the population

a. A population is defined an entire group of people, objects, or events having at least one characteristic in common

b. Populations are typically very large

c. A sample is a subgroup selected from the complete population

i. A sample must be selected in such a manner that it is representative of the entire population

ii. Use of random selection processes makes certain the every person, object or event from the population has an equal chance of being included in the sample

iii. In this way, inferences can be drawn from sample regarding the population

a. This is referred to as the ability to "generalize" the results of research conducted on a sample to the entire population

d. Using the techniques and mathematics of inferential statistics it is possible to be reasonably confident that the results are representative of the entire population

i. Statistics help the researcher decide if the results are true differences or just coincidences

The value of understanding research methods and literature

. Three major reasons why knowledge of research methods is essential for EMS providers and educators

1. To understand the professional literature
2. To understand the rationale underlying research in EMS

    a. Ability to comprehend the essential nature of the strengths and weaknesses of the techniques used to collect information and draw conclusions
3. To conduct or to assist in the conduction of research projects
    a. Can influence change in professional standards and practice

Bibliographic References

Ary, D., & L. Jacobs. (1976). *Introduction to Statistics: Purposes and Procedures*. New York: Holt, Rinehart and Winston.

Babbie, E. (1973). *Survey Research Methods*. California: Wadsworth Publishing Co. Inc.

Bledsoe B, R. Porter, et al. (2000). *Paramedic Care: Principles and Practice Introduction to Advanced Prehospital Care.* Upper Saddle River: Brady Prentice Hall Health.

Dalton, A. (1996). Enhancing critical thinking in paramedic continuing education. *Prehospital and Disaster Medicine 11(4)*, 246-53.

Gall, M.D., Borg, W. R., & Gall, J. P. (1995). *Educational research: An Introduction*. New York: Longman Publishing Group.

Hinkle, D., & W. Wiersma, et al. (1988). *Applied Statistics for the Behavioral Sciences*. Boston: Houghton Mifflin Co.

Meltzoff, J. (1998). *Critical Thinking About Research: Psychology and related fields*. Washington, DC: American Psychological Association.

Ruple, J. A. (2000). Understanding Probability--The Backbone of Inferential Statistical Analysis. *Domain[3], Summer Issue,* 2-3*.*

Ruple, J. A., & McBeth, R. (1992). Taking Chances: Statistics and Probability*. Journal of Emergency Medical Services 18(12)*, 66.

Ruple, J. A., & McBeth, R. (1992). Do Statistics Really Prove Anything? An EMS Consumer's Guide to Understanding Research Literature*. Journal of Emergency Medical Services 18(12)*, 62-65.

Sanders, M. (2000). *Mosby's Paramedic Textbook*. St. Louis: Mosby Lifeline.

The National Association of EMS Educators. (2002). Research Agenda for the Future.

United States Department of Transportation, National Highway Traffic Safety Administration, et al. (2000*). Emergency Medical Services Education Agenda for the Future: A Systems Approach*.

Vockell, E. L., & Asher, J. W. (1994). *Educational Research.* New York: Simon and Schuster Trade.

Wiersma, W. (1986). *Research Methods in Education: Introduction*. Boston: Allyn and Bacon Inc.

APPENDIX I: ACTION VERBS USEFUL FOR WRITING OBJECTIVES

COGNITIVE DOMAIN

Knowledge:	Arrange, Define, Describe, Identify, Label, List, Name, Identify, Match, Memorize, Order, Recognize, Recall, Recite, Repeat
Comprehension:	Classify, Discuss, Distinguish, Explain, Identify, Indicate, Locate, Review, Rewrite, Summarize, Tell, Translate
Application:	Apply, Choose, Compute, Demonstrate, Operate, Practice, Prepare, Solve
Analysis:	Analyze, Calculate, Compare, Contrast, Criticize, Diagram, Differentiate, Distinguish, Examine, Experiment, Evaluate, Relate, Separate, Select
Synthesis:	Assemble, Compose, Construct, Create, Combine, Design, Formulate, Organize, Prepare, Set up, Summarize, Tell, Write
Evaluate:	Appraise, Evaluate, Judge, Score

PSYCHOMOTOR DOMAIN

Imitation: Repeat, Mimic, Follow
Manipulation: Practice with minimal assistance, Create, Modify
Precision: Perform without error, Perform without assistance
Articulation: Demonstrate proficiency, Perform with confidence, Perform with style or flair
Naturalization: Perform automatically

AFFECTIVE DOMAIN

Receiving: Accept, Attempt, Willing
Responding: Challenge, Select, Support, Visit
Valuing: Defend, Display, Offer, Choose
Organization: Judge, Volunteer, Share, Dispute
Characterization: Consistently, Join, Participate

ACTION VERBS FOR WRITING GOALS

Know
Realize
Enjoy
Believe
Understand
Appreciate
Value
Comprehend
Aware
Tolerate
Be familiar with
Desire
Feel
Write

Appendix II: Academic Honesty College Procedure

Title: 10.02.01 ACADEMIC HONESTY

College Policy Number/Title: 10.02/Academic Honesty

A. General Statement

Academic honesty is a matter of concern to anyone connected with Howard Community College. A clearly and carefully thought-out policy and set of procedures can guide students and faculty members toward the accomplishment of academic honesty. Communication of these procedures will be accomplished through the following sources:

1. All catalogues, class schedules and course outlines will contain at least the statement:

"Academic honesty, as defined in the Student Handbook, is expected of all students."

2. A statement of Policies and Procedures will be contained in the Faculty and Student Handbooks.

B. Definition

1. Academic Honesty means the use of one's own thought and materials in the writing of papers, taking of tests, and other classroom related activities. Any students intentionally aiding another student in any infraction of the academic honesty policy is considered equally guilty.

2. Students are expected to give full credit for the borrowing of other's words or ideas. Intentional or unintentional use of another's words or ideas without acknowledging this use constitutes plagiarism.

There are four common forms of plagiarism:

a. The duplication of an author's words without quotation marks and accurate references or footnotes.

b. The duplication of an author's words or phrases with footnotes or accurate references, but without quotation marks.

c. The use of an author's ideas in paraphrase without accurate references or footnotes.

d. Submitting a paper in which exact words are merely rearranged even though footnoted.

3. Misrepresentation is the submission of materials for evaluation that are not the student's own.

4. Unauthorized use of notes or another individual’s materials, copying, using another individual’s materials, or unauthorized prior knowledge of the contents of tests, quizzes or other assessment instruments shall be considered a violation of the Academic Honesty Policy.

C. Penalties

As the college expects academic honesty, there must be procedures for dealing with intentional infractions of the Academic Honesty Policy.

1. First Infraction

   For the first infraction of the Academic Honesty Policy the faculty member shall give the student an "F" or its equivalent on the paper, examination, or presentation in question. **The faculty member will notify the student and explain the reason for the grade.** This action could result in a lower final grade. The appropriate division chairperson will be informed of the infraction in writing and the Vice President of Student Services will notify the student in writing of the consequences and implications of this infraction.

2. Second Infraction

   A second infraction of academic dishonesty, either in the same course or in another course, will result in an automatic "F" in the course in which the second infraction occurred. The student will be dropped from the course and barred from further class participation. The appropriate division chairperson will be informed of the incident in writing and will notify the Vice President of Student Services**. In cases where the second infraction occurs in the same course, the faculty member will notify the student and explain the reason for the "F" in the course. In other cases, the Vice President of Student Services will notify the student of the "F" in the course.** The Vice President of Student Services will notify the Director of Records and Registration that the student is to receive an "F" grade for the course. The Vice President of Student Services will meet with the student involved and apprise the student of the implication of this second infraction.

3. Third Infraction

   A third infraction of academic dishonesty, either in the same course or in another course, will result in an automatic "F" in the course in which the third infraction occurred. The student will be barred from further class participation. The appropriate division chairperson will be informed of the incident in writing and will notify the Vice President of Student Services. In cases where the third infraction occurs in the same course, the faculty member will notify the student and explain the reason for the "F" in the course. Otherwise, the Vice President of Student Services will notify the student of the "F" in the course. The Vice President of Student Services will notify the Director of Records and Registration that the student is to receive an "F" grade for the course. A third instance of plagiarism or any behavior involving an infraction of the Academic Honesty Policy will result in disciplinary action as determined by the Student Judicial Process

APPENDIX III: Classroom Behavior, "A Practical Guide for Faculty"

Classroom Disruption is a Disciplinary Offense

The term "classroom disruption" means behavior a reasonable person would view as substantially or repeatedly interfering with conduct of a class. Examples range from persisting to speak without being recognized, to resorting to physical threats or personal insults.

Academic Freedom

College policies on classroom disruption cannot be used to punish lawful classroom dissent. The lawful expression of a disagreement with a teacher or other students is not itself "disruptive behavior."

Rudeness, incivility, and disruption are often distinguishable, even though they may intersect.

In most instances, it's better to respond to rudeness by example and suasion (e.g., advising a student in private that he or she appears to have a habit of interrupting others.) Rudeness can become disruption when it is repetitive, especially after a warning has been given.

Strategies to Prevent & Respond to Disruptive Behavior

Clarify standards for the conduct of your class. For example, if you want student to raise their hands for permission to speak, say so.

Serve as a role model for the conduct you expect from your students.

If you believe inappropriate behavior is occurring, consider a general word of caution, rather than warning a particular student (e.g., "we have too many contemporaneous conversations at the moment; let's all focus on the same topic.")

If the behavior is irritating, but not disruptive, try speaking with the student after class. Most students are unaware of distracting habits or mannerisms, and have no intent to be offensive or disruptive.

There may be rare circumstances when it is necessary to speak to a student during class about his or her behavior. Do so in a firm and friendly manner, indicating that further discussion can occur after class.

A student who persists in disrupting a class may be directed by the faculty member to leave the classroom for the remainder of the class period. The student should be told the reason(s) for such action, and given an opportunity to discuss the matter with the faculty member as soon as practicable. Prompt consultation should be undertaken with the department chair and the dean of students. Suspension for more than one class period requires disciplinary action, in accordance with the Code of Student Conduct.

If a disruption is serious, and other reasonable measures have failed, the class may be adjourned, and campus security should be summoned.

Code of Conduct Violation

Disruptive classroom behavior is a disciplinary violation under the HCC's Student Code of Conduct. As such, students accused of this type of violation are subject to a disciplinary conference or hearing, depending upon the nature and frequency of the disruption.

Procedural Protections

Students accused of disciplinary violations are entitled to the following procedural protections:

To be informed of the specific charges against them, and the identity of the complainant.

To be allowed to request an informal resolution of the case.

To be allowed reasonable time to prepare a defense.

To hear and respond to all evidence upon which a charge is based.

To call and confront relevant witnesses.

To be assured of confidentiality, in accordance with the terms of the *Family Educational Rights and Privacy Act of 1974.*

To be allowed to request that any person conducting a disciplinary conference, or serving as a discipline conference committee member or chair, be disqualified on the ground of personal bias.

To be provided with a copy of these rights prior to any conference of discipline hearing.

To be considered innocent of the charges until proven guilty by clear and convincing evidence.

Sources: HCC Conduct Code *Synfax Weekly Report,* April 1, 1996

APPENDIX IV: Student Counseling Report (Sample)

This counseling report will be made part of the following student's file.

Student Name: _____ Date: _____

Person Issuing Counseling: _____ Title: _____

Section I:

Behavioral: The following deficiency has been noted in your behavior while participating in the Emergency Medical Services program.

Penalty: First offense will be met with a counseling. Second offense will be met with a one-week suspension from participation in the program. Third offense will be met with a failing grade in the course and the possibility of permanent discharge from the program. A first or second offense, if judged severe enough by the program coordinator, can lead to a failing grade in the course and the possibility of permanent discharge from the program.

1. Integrity: Being of sound moral principle; honesty and sincerity.
   _____
   _____
2. Empathy: An understanding of another person's situation / illness.
   _____
   _____
3. Self-Motivation: The ability to show inner drive toward good intention.
   _____
   _____
4. Appearance / Personal Hygiene: Neat, clean and non-malodorous.
   _____
   _____
5. Teamwork and Diplomacy: Working in a cooperative manner with respect for others.
   _____
   _____
6. Respect: To show consideration with deference or courtesy.
   _____
   _____
7. Patient Advocacy: Acting in the best interest of / for the patient.
   _____
   _____

Section II:

Conduct: The following action(s) has / have been noted as unacceptable while participating in the Emergency Medical Services program.

Penalty: A Group I offense will be met with a failing grade in the course and the possibility of permanent discharge from the program. A Group II offense will be met with the rules as stated in Penalty of Section I.

Group I

1. Obtaining, possessing, selling or using marijuana, unprescribed narcotics or alcohol while within the confines of the program. Reporting to class, lab or a clinical site under the influence of any of these substances.
2. Theft, abuse, misuse or destruction of any property or equipment of any patient, visitor, student, college employee, clinical employee, the college or clinical sites.
3. Disclosing confidential information without proper authorization.
4. Immoral, indecent, illegal or unethical conduct.
5. Possession, wielding or threatening to use any weapon while within the confines of the program.
6. Assault and/or battery on any patient, visitor, student or faculty.
7. Misuse or falsification of patient, student or official records.
8. Removal of patient, student or official records without prior authorization.
9. Cheating on any test, form or official record of the program.

The following Group I offense(s) has/have occurred: # ____, ____, ____, ____

Explanation:

_____
_____
_____
_____

Group II

1. Engaging in disorderly conduct that could ultimately threaten the physical well being of any patient, visitor, student, faculty or clinical site employee.
2. Leaving class, lab or a clinical area without proper authorization.
3. Sleeping during class, lab or scheduled hospital clinical.
4. Restricting or impeding clinical output.
5. Insubordination and/or refusal to obey the orders of any faculty, administrative representative of the college or clinical site employee.
6. Inconsiderate treatment of patients, visitors, students, faculty or clinical site employees.
7. Excessive absences.
8. Failure to be ready for a clinical assignment at the starting time.
9. Failure to perform or to exercise reasonable care in the performance of responsibilities.
10. Violation of safety regulations or failure to use safety equipment provided.
11. Misuse of clinical time.
12. Unauthorized use of equipment.
13. Smoking in restricted areas.
14. Unauthorized posting, removing, or tampering with bulletin board notices.
15. Unauthorized soliciting, vending, or distribution of written or printed material.
16. Creating or contributing to unsafe or unsanitary conditions.
17. Threatening, intimidating or coercing other students, patients, visitors, faculty or clinical site employee.
18. Individual acceptance of gratuities from patients.
19. Inappropriate dress or appearance based on program regulations.
20. Other – as deemed necessary by College personnel.

The following Group II offense has occurred: # ____, ____, ____, ____, ____

Explanation:

_____
_____
_____

Follow up: (include specific expectations, clearly defined positive behavior, actions that will be taken if the behavior continues, dates of future counseling sessions, etc.):

_____
_____
_____

Edison College Personnel (printed): _____

Title: _____

Signature: _____

I have read this notice, have spoken with my instructor and have had a chance to discuss this. I understand this report and agree to abide by the rules of the College and the program.

Student Name (printed): _____

Signature: _____

Comments:

_____
_____
_____

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

I have reviewed this counseling record.

Coordinator: _____ Date: _____

Medical Director: _____ Date: _____

Comments:

_____
_____

(Excerpt from 1998 EMT-P: NSC)

INSTRUCTIONS FOR AFFECTIVE STUDENT EVALUATIONS

There are two primary purposes of an affective evaluation system: 1) to verify competence in the affective domain, and 2) to serve as a method to change behavior. Although affective evaluation can be used to ultimately dismiss a student for unacceptable patterns of behavior that is not the primary purpose of these forms. It is also recognized that there is some behavior that is so serious (abuse of a patient, gross insubordination, illegal activity, reporting for duty under the influence of drugs or alcohol, etc) that it would result in immediate dismissal from the educational program.

The two forms included in the EMT-Paramedic: National Standard Curricula were developed by the Joint Review Committee on Educational Programs for the EMT-Paramedic. They represent extensive experience in the evaluation of student's affective domain. The nature of this type of evaluation makes it impossible to achieve complete objectivity, but these forms attempt to decrease the subjectivity and document affective evaluations.

In attempting to change behavior it is necessary to identify, evaluate, and document the behavior that you want. The eleven affective characteristics that form the basis of this evaluation system refer to content in the Roles and Responsibilities of the Paramedic unit of the curriculum. Typically, this information is presented early in the course and serves to inform the students what type of behavior that is expected of them. It is important that the instructor is clear about these expectations.

Cognitive and psychomotor objectives are relatively easy to operationalize in behavioral terms. Unfortunately, the nature of the affective domain makes it practically impossible to enumerate all of the possible behaviors that represent professional behavior in each of the eleven areas. For this reason, the instructor should give examples of acceptable and unacceptable behavior in each of the eleven attributes, but emphasize that these are examples and do not represent an all inclusive list.

The affective evaluation instruments included in this curriculum take two forms: A Professional Behavior Evaluation and a Professional Behavior Counseling Record. The Professional Behavior Evaluation should be completed regularly (i.e. every other week, once a month, etc.) by faculty and preceptors for each student. It is recommended that as many people as practically possible complete this form and that it becomes part of the students record. The more independent evaluations of the student, the more reliable are the results.

The only two options for rating the student on this form are "competent" and "not yet competent". For each attribute, a short list of behavioral markers is listed that indicates what is generally considered a demonstration of competence for entry-level paramedics. This is not an all-inclusive list, but serves to help the evaluator in making judgments. Clearly there are behaviors that warrant a "not yet competent" evaluation that are not listed. Any ratings of "not yet competent" require explanation in the space provided.

Establishing a cut score to use in conjunction with the Professional Behavior Evaluation instrument is important. A cut score can be established by judgment of the local programs community of interest. The question the community should ask is, "What percent score do we expect of graduates of our education program to achieve in the affective domain in order to demonstrate entry-level competency for an (first month, second semester, graduate, etc.) entry-level student?"

When the cut score judgment is made on acceptability or deviation of competent behavior for each characteristic a percent score can be achieved. For example, a student may have received 10 competent checks out of 11 (10 of 11 = 91%), or 5 of 7 (because 4 areas were not evaluated) for a score of 71%. This student may then continue to obtain scores of 91%, 91% 82%, etc and have a term grade of 86% in the affective domain. Each student in the program would receive an average score. Results of multiple evaluations throughout the program would indicate if the score set by the community of interest were too high or too low. When a number of evaluations had evolved adjustments in acceptable score would yield a standard for the community. This standard coupled with community of interest judgments based upon graduate student and employer survey feedbacks would identify additional validity evidence for the cut score each year. A valid cut score based upon years of investigation could then be used as a determining factor on future participation in the education program.

For all affective evaluations, the faculty member should focus on patterns of behavior, not isolated instances that fall outside the student's normal performance. For example, a student who is consistently on time and prepared for class may have demonstrated competence in time management and should not be penalized for an isolated emergency that makes him late for one class. On the other hand, if the student is constantly late for class, they should be counseled and if the behavior continues, rated as "not yet competent" in time management. Continued behavior may result in disciplinary action.

The second form, the Professional Behavior Counseling form is used to clearly communicate to the student that their affective performance is unacceptable. This form should be used during counseling sessions in response to specific incidents (i.e. cheating, lying, falsification of documentation, disrespect/insubordination, etc.) or patterns of unacceptable behavior. As noted before, there is some behavior that is so egregious as to result in immediate disciplinary action or dismissal. In the case of such serious incidents, thorough documentation is needed to justify the disciplinary action. For less serious incidents, the Professional Behavior Counseling form can serve as an important tracking mechanism to verify competence or patterns of uncorrected behavior.

On the Professional Behavior Counseling form, the evaluator checks all of the areas that the infraction affects in the left hand column (most incidents affect more than one area) and documents the nature of the incident(s) in the right hand column. Space is provided to document any follow-up. This should include specific expectations, clearly defined positive behavior, actions that will be taken if the behavior continues, and dates of future counseling sessions.

Using a combination of these forms helps to enable the program to demonstrate that graduating students have demonstrated competence in the affective domain. This is achieved by having many independent evaluations, by different faculty members at different times, stating that the student was competent. These forms can also be used to help correct unacceptable behavior. Finally, these forms enable programs to build a strong case for dismissing students following a repeated pattern of unacceptable behavior. Having numerous, uncoberrated evaluations by faculty members documenting unacceptable behavior, and continuation of that behavior after remediation, is usually adequate grounds for dismissal.

PROFESSIONAL BEHAVIOR EVALUATION

Student's Name:

_____

Date of evaluation:

_____

1. INTEGRITY	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent honesty; being able to be trusted with the property of others; can be trusted with confidential information; complete and accurate documentation of patient care and learning activities.		
2. EMPATHY	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Showing compassion for others; responding appropriately to the emotional response of patients and family members; demonstrating respect for others; demonstrating a calm, compassionate, and helpful demeanor toward those in need; being supportive and reassuring to others.		
3. SELF – MOTIVATION	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Taking initiative to complete assignments; taking initiative to improve and/or correct behavior; taking on and following through on tasks without constant supervision; showing enthusiasm for learning and improvement; consistently striving for excellence in all aspects of patient care and professional activities; accepting constructive feedback in a positive manner; taking advantage of learning opportunities		
4. APPEARANCE AND PERSONAL HYGIENE	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Clothing and uniform is appropriate, neat, clean and well maintained; good personal hygiene and grooming.		
5. SELF – CONFIDENCE	Competent [ ]	Not yet competent [ ]

Examples of professional behavior include, but are not limited to: Demonstrating the ability to trust personal judgement; demonstrating an awareness of strengths and limitations; exercises good personal judgement.		
6. COMMUNICATIONS	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Speaking clearly; writing legibly; listening actively; adjusting communication strategies to various situations		
7. TIME MANAGEMENT	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent punctuality; completing tasks and assignments on time.		
8. TEAMWORK AND DIPLOMACY	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Placing the success of the team above self interest; not undermining the team; helping and supporting other team members; showing respect for all team members; remaining flexible and open to change; communicating with others to resolve problems.		
9. RESPECT	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Being polite to others; not using derogatory or demeaning terms; behaving in a manner that brings credit to the profession.		
10. PATIENT ADVOCACY	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Not allowing personal bias to or feelings to interfere with patient care; placing the needs of patients above self interest; protecting and respecting patient confidentiality and dignity.		
11. CAREFUL DELIVERY OF SERVICE	Competent [ ]	Not yet competent [ ]

Examples of professional behavior include, but are not limited to: Mastering and refreshing skills; performing complete equipment checks; demonstrating careful and safe ambulance operations; following policies, procedures, and protocols; following orders.

Use the space below to explain any "not yet competent" ratings. When possible, use specific behaviors, and corrective actions.

	- Faculty Signature

PROFESSIONAL BEHAVIOR EVALUATION

Student's Name: *Janet L.*

Date of evaluation: *September 1998*

1. INTEGRITY	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent honesty; being able to be trusted with the property of others; can be trusted with confidential information; complete and accurate documentation of patient care and learning activities.		
2. EMPATHY	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Showing compassion for others; responding appropriately to the emotional response of patients and family members; demonstrating respect for others; demonstrating a calm, compassionate, and helpful demeanor toward those in need; being supportive and reassuring to others.		

3. SELF - MOTIVATION	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Taking initiative to complete assignments; taking initiative to improve and/or correct behavior; taking on and following through on tasks without constant supervision; showing enthusiasm for learning and improvement; consistently striving for excellence in all aspects of patient care and professional activities; accepting constructive feedback in a positive manner; taking advantage of learning opportunities		
4. APPEARANCE AND PERSONAL HYGIENE	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Clothing and uniform is appropriate, neat, clean and well maintained; good personal hygiene and grooming.		
5. SELF - CONFIDENCE	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Demonstrating the ability to trust personal judgement; demonstrating an awareness of strengths and limitations; exercises good personal judgement.		
6. COMMUNICATIONS	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Speaking clearly; writing legibly; listening actively; adjusting communication strategies to various situations		
7. TIME MANAGEMENT	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Consistent punctuality; completing tasks and assignments on time.		
8. TEAMWORK AND DIPLOMACY	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Placing the success of the team above self interest; not undermining the team; helping and supporting other team members;		

showing respect for all team members; remaining flexible and open to change; communicating with others to resolve problems.		
9. RESPECT	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Being polite to others; not using derogatory or demeaning terms; behaving in a manner that brings credit to the profession.		
10. PATIENT ADVOCACY	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Not allowing personal bias to or feelings to interfere with patient care; placing the needs of patients above self interest; protecting and respecting patient confidentiality and dignity.		
11. CAREFUL DELIVERY OF SERVICE	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Mastering and refreshing skills; performing complete equipment checks; demonstrating careful and safe ambulance operations; following policies, procedures, and protocols; following orders.		

Use the space below to explain any "not yet competent" ratings. When possible, use specific behaviors, and corrective actions.

	Janet's run reports, written case reports, and home work are illegible and disorganized. She has numerous spelling and grammatical errors
	Janet repeatedly hands in assignments after due dates. She does not complete clinical time in a organized, organized manner. She did not report for five scheduled clinical shifts this semester and reported to medic 6 twice when she was not scheduled. Janet has not completed the required clinical for this semester

John Brown	- Faculty Signature

PROFESSIONAL BEHAVIOR EVALUATION

Student's Name: *Steve R,*

Date of evaluation: *November 1999*

1. INTEGRITY	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent honesty; being able to be trusted with the property of others; can be trusted with confidential information; complete and accurate documentation of patient care and learning activities.		
2. EMPATHY	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Showing compassion for others; responding appropriately to the emotional response of patients and family members; demonstrating respect for others; demonstrating a calm, compassionate, and helpful demeanor toward those in need; being supportive and reassuring to others.		
3. SELF – MOTIVATION	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Taking initiative to complete assignments; taking initiative to improve and/or correct behavior; taking on and following through on tasks without constant supervision; showing enthusiasm for learning and improvement; consistently striving for excellence in all aspects of patient care and professional activities; accepting constructive feedback in a positive manner; taking advantage of learning opportunities		
4. APPEARANCE AND PERSONAL HYGIENE	Competent [☒]	Not yet competent [ ]

Examples of professional behavior include, but are not limited to: Clothing and uniform is appropriate, neat, clean and well maintained; good personal hygiene and grooming.		
5. SELF – CONFIDENCE	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Demonstrating the ability to trust personal judgement; demonstrating an awareness of strengths and limitations; exercises good personal judgement.		
6. COMMUNICATIONS	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Speaking clearly; writing legibly; listening actively; adjusting communication strategies to various situations		
7. TIME MANAGEMENT	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent punctuality; completing tasks and assignments on time.		
8. TEAMWORK AND DIPLOMACY	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Placing the success of the team above self interest; not undermining the team; helping and supporting other team members; showing respect for all team members; remaining flexible and open to change; communicating with others to resolve problems.		
9. RESPECT	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Being polite to others; not using derogatory or demeaning terms; behaving in a manner that brings credit to the profession.		
10. PATIENT ADVOCACY	Competent [☒]	Not yet competent [ ]

Examples of professional behavior include, but are not limited to: Not allowing personal bias to or feelings to interfere with patient care; placing the needs of patients above self interest; protecting and respecting patient confidentiality and dignity.		
11. CAREFUL DELIVERY OF SERVICE	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Mastering and refreshing skills; performing complete equipment checks; demonstrating careful and safe ambulance operations; following policies, procedures, and protocols; following orders.		

Use the space below to explain any "not yet competent" ratings. When possible, use specific behaviors, and corrective actions.

#2, 5, 6, 8, & 9 Steve has demonstrated inappropriate classroom behavior by monopolizing class time, answering questions intended for other students, and making sarcastic remarks about other students answers. Steve demonstrates a superiority complex over fellow classmates belittling and has repeatedly belittled their experience, while boasting and exaggerating about his field experience.

T. Jones	- Faculty Signature

PROFESSIONAL BEHAVIOR EVALUATION

Student's Name: *Steve R.*

Date of evaluation: *December 1999*

1. INTEGRITY	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent honesty; being able to be trusted with the property of others; can be trusted with confidential information; complete and accurate documentation of patient care and learning activities.		
2. EMPATHY	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Showing compassion for others; responding appropriately to the emotional response of patients and family members; demonstrating respect for others; demonstrating a calm, compassionate, and helpful demeanor toward those in need; being supportive and reassuring to others.		
3. SELF – MOTIVATION	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Taking initiative to complete assignments; taking initiative to improve and/or correct behavior; taking on and following through on tasks without constant supervision; showing enthusiasm for learning and improvement; consistently striving for excellence in all aspects of patient care and professional activities; accepting constructive feedback in a positive manner; taking advantage of learning opportunities		
4. APPEARANCE AND PERSONAL HYGIENE	Competent [☒]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Clothing and uniform is appropriate, neat, clean and well maintained; good personal hygiene and grooming.		
5. SELF – CONFIDENCE	Competent [ ]	Not yet competent [☒]
Examples of professional behavior include, but are not limited to: Demonstrating the ability to trust personal judgement; demonstrating an awareness of strengths and limitations; exercises good personal judgement.		
6. COMMUNICATIONS	Competent [ ]	Not yet competent [☒]

Examples of professional behavior include, but are not limited to: Speaking clearly; writing legibly; listening actively; adjusting communication strategies to various situations		
7. TIME MANAGEMENT	Competent []	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Consistent punctuality; completing tasks and assignments on time.		
8. TEAMWORK AND DIPLOMACY	Competent [ ]	Not yet competent []
Examples of professional behavior include, but are not limited to: Placing the success of the team above self interest; not undermining the team; helping and supporting other team members; showing respect for all team members; remaining flexible and open to change; communicating with others to resolve problems.		
9. RESPECT	Competent [ ]]	Not yet competent []
Examples of professional behavior include, but are not limited to: Being polite to others; not using derogatory or demeaning terms; behaving in a manner that brings credit to the profession.		
10. PATIENT ADVOCACY	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Not allowing personal bias to or feelings to interfere with patient care; placing the needs of patients above self interest; protecting and respecting patient confidentiality and dignity.		
11. CAREFUL DELIVERY OF SERVICE	Competent [ ]	Not yet competent [ ]
Examples of professional behavior include, but are not limited to: Mastering and refreshing skills; performing complete equipment checks; demonstrating careful and safe ambulance operations; following policies, procedures, and protocols; following orders.		

Use the space below to explain <u>any</u> "not yet competent" ratings. When possible, use specific behaviors, and corrective actions.

#2	*Steve is constantly disrupting class with irrelevant questions. He is disrespectful to guest instructors, classmates and the program.*
#5	*Steve seems to have an impression that he is better than the others students because he has more field experience. He is overconfident and overbearing.*
#6	*Steve has not changed his communication skills despite verbal counseling.*
#8	*Steve's disruptions are destructive to the team environment by placing his needs above those of the group.*
#9	*Disruptions are disrespectful.*

A. Cox	- Faculty Signature

PROFESSIONAL BEHAVIOR COUNSELING RECORD

Student's Name:

Date of counseling:

Date of incident:

	Reason for Counseling	**Explanation (use back of form if more space is needed):**
	Integrity	
	Empathy	

	Self - Motivation	
	Appearance/Personal Hygiene	
	Self - Confidence	
	Communications	
	Time Management	
	Teamwork and Diplomacy	
	Respect	
	Patient Advocacy	
	Careful delivery of service	

Follow-up (include specific expectations, clearly defined positive behavior, actions that will be taken if behavior continues, dates of future counseling sessions, etc.):

	-Faculty signature
I have read this notice and I understand it.	
	-Student signature
	-Administrative or Medical Director Review

PROFESSIONAL BEHAVIOR COUNSELING RECORD

Student's Name: *Steve R.*

Date of counseling: *December 14, 1998*

Date of incident: *November and December 1999*

	Reason for Counseling	**Explanation (use back of form if more space is needed):**
	Integrity	*This counseling session was in response to the two Professional*
	Empathy	*Behavior Evaluations file by Instructors Cox and Jones.*
	Self - Motivation	*They both indicated that Steve has been disruptive in classes*
	Appearance/Personal Hygiene	*(see attached)*
	Self - Confidence	
	Communications	
	Time Management	
	Teamwork and Diplomacy	
	Respect	
	Patient Advocacy	

	Careful delivery of service	

Follow-up (include specific expectations, clearly defined positive behavior, actions that will be taken if behavior continues, dates of future counseling sessions, etc.):

· Student was advised that his behavior is inappropriate and unacceptable. Continuation of this behavior
will result in dismissal from class.
· Written warning from program director.
· Instructors Cox and Jones to complete Professional Behavior Evaluations bi-weekly throughout
next semester

M. Travis	*-Faculty signature*
I have read this notice and I understand it.	
Steve R.	*-Student signature*
Dr. O'Hara	*-Administrative or Medical Director Review*

PROFESSIONAL BEHAVIOR COUNSELING RECORD

Student's Name: *Joe L.*

Date of counseling: *February 23, 1999*

Date of incident: *February 21, 1999*

–	**Reason for Counseling**	**Explanation (use back of form if more space is needed):**
	Integrity	*Joe reported to a field rotation 16 minutes late, he was not wearing*
	Empathy	*(nor did he have in his possession) a uniform belt and with*
	Self - Motivation	*"at least 2 days beard growth" according to field supervisor*
_	Appearance/Personal Hygiene	*Johnson. When Joe was approached regarding this situation*
	Self - Confidence	*he became argumentative and told Mr. Johnson to*
	Communications	*"...mind your own business." Joe was asked to leave.*
_	Time Management	*Others that witnessed this exchange were Paramedics*
		Davis and Lawrence.

	Teamwork and Diplomacy	
_	Respect	
	Patient Advocacy	
	Careful delivery of service	

Follow-up (include specific expectations, clearly defined positive behavior, actions that will be taken if behavior continues, dates of future counseling sessions, etc.):

· Reviewed clinical Policies and Procedures manual section referring to personal appearance and hygiene,
time management, and respect. I also reviewed the conduct at clinical rotations with Joe.
· Asked Joe to write a letter of apology to field supervisor Johnson, and Paramedics Davis and Lawrence,
which he agreed to do.
· I informed Joe that any further display of disrespectful behavior will result in dismissal from the program.
*A continued pattern of poor time management and/or poor appearance/personal hygiene could also result in dismiss*al.

Bill Smith	*-Faculty signature*

I have read this notice and I understand it.	
Joe L.	*-Student signature*
Dr. Jones	*-Administrative or Medical Director Review*

APPENDIX VI: Rubric Affective Domain Tool

Background

There are two primary purposes of an affective evaluation system: 1) to verify competence in the affective domain, and 2) to serve as a method to change behavior. Although affective evaluation can be used to ultimately dismiss a student for unacceptable patterns of behavior that is not the primary purpose of these forms. It is also recognized that there is some behavior that is so serious (abuse of a patient, gross insubordination, illegal activity, reporting for duty under the influence of drugs or alcohol, etc) that it would result in immediate dismissal from the educational program.

The two forms included in the EMT-Paramedic: National Standard Curricula were developed by the Joint Review Committee on Educational Programs for the EMT-Paramedic. These forms have been modified somewhat to meet the needs of the XX EMS Program. They represent extensive experience in the evaluation of student's affective domain. The nature of this type of evaluation makes it impossible to achieve complete objectivity, but these forms attempt to decrease the subjectivity and document affective evaluations.

In attempting to change behavior it is necessary to identify, evaluate, and document the behavior that you want. The eleven affective characteristics that form the basis of this evaluation system refer to content in the Roles and Responsibilities of the Paramedic unit of the curriculum. Typically, this information is presented early in the course and serves to inform the students what type of behavior that is expected of them. It is important that the instructor is clear about these expectations.

For all affective evaluations, the faculty member should focus on patterns of behavior, not isolated instances that fall outside the student's normal performance. For example, a student who is consistently on time and prepared for class may have demonstrated competence in time management and should not be penalized for an isolated emergency that makes him late for one class. On the other hand, if the student is constantly late for class, they should be counseled. Continued behavior may result in disciplinary action.

The second form, the Professional Behavior Counseling form is used to clearly communicate to the student that their affective performance is unacceptable. This form should be used during counseling sessions in response to specific incidents (i.e. cheating, lying, falsification of documentation, disrespect/insubordination, etc.) or patterns of unacceptable behavior. As noted before, there is some behavior that is so egregious as to result in immediate disciplinary action or dismissal. In the case of such serious incidents, thorough documentation is needed to justify the disciplinary action. For less serious incidents, the Professional Behavior Counseling form can serve as an important tracking mechanism to verify competence or patterns of uncorrected behavior.

On the Professional Behavior Counseling form, the evaluator checks all of the areas that the infraction affects in the left hand column (most incidents affect more than one area) and documents the nature of the incident(s) in the right hand column. Space is provided to document any follow-up. This should include specific expectations, clearly defined expected positive behavior, actions that will be taken if the behavior continues, and dates of future counseling sessions.

Using a combination of these forms helps to enable the program to demonstrate that graduating students have demonstrated competence in the affective domain. This is achieved by having many independent evaluations, by different faculty members at different times, stating that the student was competent. These forms can also be used to help correct unacceptable behavior. Finally, these

forms enable programs to build a strong case for dismissing students following a repeated pattern of unacceptable behavior. Having numerous, uncorroborated evaluations by faculty members documenting unacceptable behavior, and continuation of that behavior after remediation, is usually adequate grounds for dismissal.

Please rate the student according to your observations only. The categories identify professional behaviors described as desirable attributes of EMS medical professionals. The descriptions within each category represent the behaviors generally expected for the individual.

Each category will receive a score between 1 and 5. **A score of 3 is considered average and represents the expected acceptable level of conduct for that category.** If asked, you should be able to provide verification (as written or verbal proof as appropriate) for any score other than "3." If the individual you are evaluating is performing as an entry-level provider they should obtain scores of "3" in most categories.

Student Name: _____

Affective Domain Evaluation: _____ Date:_____

1. **Integrity**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Major infraction of 1 (or more) areas of #3 or many minor infractions in most areas of #3.
	2	Minor infractions of 1 area of #3 but otherwise compliant with all aspects described in #3.
	3	Consistent honesty, being able to be trusted with property and confidential information, complete and accurate documentation of patient care and learning activities.
	4	Consistent honesty, assists other classmates in understanding confidential issues and in developing their documentation skills.
	5	Always honest, leads by example and models exemplary behaviors regarding integrity. Consistently turns in paperwork that is complete and accurate prior to due date.

2. **Empathy**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Being deliberately disrespectful of others, making fun of others, being condescending or sarcastic to others, clearly uncomfortable dealing with emotions of patients.
	2	Being uncompassionate to others or responding inappropriately to emotional responses because you are unconformable with their emotional displays. Acting coolly towards patients in distress and not acting as a patient advocate.
	3	Showing compassion to others, responding appropriately to emotional responses by others, demonstrating respect to others, being supportive and reassuring.

	4	Able to show compassion and respond appropriately while maintaining professional demeanor, demonstrating a strong desire to advocate for the patient, can direct patients and their families to available community resources.
	5	Seeks out opportunities to serve in the community, when the situation arises can provide contact information on assistance agencies, has the ability to set troubled patients at ease and actively listens to their problems and concerns.

3. **Self-motivation**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Consistently failing to meet established deadlines, unable to demonstrate intrinsic motivating factors requiring extra extrinsic motivation from instructors, failing to improve even after corrective feedback has been provided by faculty, requiring constant supervision to complete tasks or being asked to repeat a task that is incorrectly performed.
	2	Failing to meet 1-3 tasks as described in #3 but obviously making attempts to attain acceptable standards.
	3	Taking initiative to complete assignments, taking initiative to improve or correct behavior, taking on and following through on tasks without constant supervision, showing enthusiasm for learning and improvement, consistently striving for improvement in all aspects of patient care and professional activities, accepting constructive criticism in a positive manner, taking advantage of learning opportunities.
	4	Occasionally completing and turning in assignments before the scheduled deadline, volunteering for additional duties, consistently striving for excellence in all aspects of patient care and professional activities, seeking out a mentor or faculty member to provide constructive criticism, informing faculty of learning opportunities.

	5	Never missing a deadline and often completing assignments well ahead of deadlines, reminding other students of deadlines, supporting faculty in upholding the rules and regulations of the program, taking seriously opportunities to provide feedback to fellow students, seeking opportunities to obtain feedback, assisting faculty in arranging and coordinating activities.

4. **Appearance and Personal Hygiene**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Inappropriate uniform or clothing worn to class or clinical settings. Poor hygiene or grooming.
	2	Appropriate clothing or uniform is selected for a majority of the time, but the uniform may be unkempt (wrinkled), mildly soiled, or in need of minor repairs, appropriate personal hygiene is common, but occasionally the individual is unkempt or disheveled.
	3	Clothing and uniform is appropriate, neat, clean and well-maintained, good personal hygiene and grooming.
	4	Clothing and uniform are above average. Uniform is pressed and business casual is chosen when uniform is not worn. Grooming and hygiene is good or above average.
	5	Uniform is always above average. Non-uniform clothing is business-like. Grooming and hygiene is impeccable. Hair is worn in an appropriate manner for the environment and student is free of excessive jewelry. Make-up and perfume or cologne usage is discrete and tasteful.

5. **Self-confidence**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Does not trust personal judgment, is unaware of strengths or weaknesses, and frequently exercises poor personal judgment.
	2	Needs encouragement before not trusting personal judgment, is aware of strengths but does not readily recognize weaknesses, sometimes makes poor personal choices.

	3	Demonstrating the ability to trust personal judgment, demonstrating an awareness of strengths and limitations, exercises good personal judgment.
	4	Stands by his/her choices when challenged by an authority figure, aware of strengths and weaknesses and seeks to improve, exercises good personal judgment and often serves as a mentor for classmates.
	5	Stands by and can defend personal choices when challenged by an authority figure, actively seeks to improve on weaknesses, seeks out opportunities to assist other classmates in developing their self-confidence.

6. **Communications**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Unable to speak or write clearly and is unable to correct their behavior despite intervention by instructors, does not actively listen (requires instructions to be repeated or appears unable to follow directions,) resistant to learning new communications strategies.
	2	Needs work to speak or write clearly, knows how to actively listen although sometimes is unable to model good listening skills, able to identify alternative communication strategies needed in various situations but is still developing the skill to perform alternative strategies.
	3	Speaking clearly, writing legibly, listening actively, adjusting communications strategies to various situations.
	4	Working on improving speaking and writing abilities, models active listening skills, able to modify communication strategies easily in various situations and able to effectively communicate a message in these various settings.

	5	Working on self and assisting classmates in improving speaking and writing abilities, models and is able to demonstrate active listening techniques to other students, is comfortable utilizing a variety of communication styles, may have proficiency in another language, including sign language.

7. **Time management**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Often late to class or clinical sites, upon arrival needs additional time to be ready to begin (changing into uniform, gathering supplies, etc.), frequently late in turning in assignments, requires constant reminders about due dates and will blame others if a due date is missed.
	2	Occasionally late in arriving to class or clinical sites, occasionally late in turning in assignments or requires reminding about deadlines.
	3	Consistent punctuality, completing tasks and assignments on time.
	4	Seldom late to class or clinical, generally ready to begin class or clinical prior to the actual start time, completes tasks and assignments by due date (and occasionally in advance of due date) with minimal need for reminders of due dates.
	5	Punctual (or early) nearly 100% of the time, completes tasks and assignments prior to the due date, seldom requires reminding about deadlines or due dates, may assist instructor in reminding classmates about due dates.

8. **Teamwork and diplomacy**

		Required attributes to obtain the recommended score

Your recommended score: _____	1	Manipulating the team or acting with disregard to the team, being disrespectful of team members, being resistant to change or refusing to cooperate in attempts to work out solutions.
	2	Sometimes acting for personal interest at the expense of the team, acting independent of the team or appearing non-supportive, being somewhat resistant to change or occasionally unwilling to work out a solution.
	3	Placing the success of the team above self interest, not undermining the team, helping and supporting other team members, showing respect for all team members, remaining flexible and open to change, communicating with others to resolve problems.
	4	Placing success of the team above self interest, supporting and holding up the team by shouldering additional responsibilities, actively seeking to include all members of the team in decision making processes were appropriate, welcoming change and remaining flexible, helping to open the lines of communication.
	5	Placing success of the team above self interest (even if that means a negative outcome to self,) taking a leadership role and using good management skills while leading, involving all appropriate team members in the decision making process, suggesting and implementing changes to benefit the team, seeking ways to keep communications and dialogue going.

9. **Respect**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Disrespect of authority, being argumentative, using inappropriate words or outbursts of anger, deliberately undermining authority in words or actions or trying to provoke others, frequently unable to act in a professional manner.

	2	Being polite when required, occasionally overheard using demeaning or derogatory language but confining it to situations other than in patient care settings, occasionally acting unprofessional on the job.
	3	Being polite to others, not using derogatory or demeaning terms, behaving in a manner that brings credit to the profession.
	4	Being polite even when a situation is not going in his/her favor, always using respectful language when describing situations even when not in public areas, modeling good professional behaviors.
	5	Serving as a "peacemaker" in volatile situations, able to take abusive language or disrespect from patients without reacting negatively towards the individual, modeling good professional behaviors even when outside of the classroom or off of the job.

10. **Patient advocacy**

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Unable to deal with patients because of personal biases, actively demeaning or degrading patinets with words or deeds, unconcerned about patient rights, feelings or considerations, frequently takes shortcuts during care of patients because it is "easier" or "faster."
	2	Occasionally has difficulty dealing with patients because of personal bias or feelings, not always able to place the needs of the patient first,
	3	Not allowing personal bias or feelings to interfere with patient care, placing the needs of patients above self-interest, protecting and respecting patient confidentiality and dignity.

	4	Not allowing personal bias or feelings to interfere with patient care despite strong negative feelings or biases towards a patient or situation, actively advocating for patient rights, protecting confidentiality.
	5	Models patient advocacy and able to defend the need to advocate for patient rights, seeks out opportunities to help fellow classmates learn the principles of patient advocacy, when the opportunity presents itself can be called upon to follow through on an advocacy issue even if it means it on their off time.

11. Careful delivery of services

Your recommended score: _____		Required attributes to obtain the recommended score
	1	Unable to perform skills at entry level or requiring constant monitoring or reinforcement to perform skills, required to recheck tasks because of omissions or inaccuracies in performance or documentation, unwilling to learn policies, procedures or protocols, deliberate unwillingness to follow the letter or spirit of rules or regulations.
	2	Occasionally performing skills below the entry-level, requiring monitoring to ensure completeness and accuracy in completing tasks, occasional minor breeches in policies, procedures or protocols attributed to lack of knowledge of it but willing to learn, may follow the letter of, but not always the spirit, of rules and regulations.
	3	Performing skills at an entry-level capacity a majority of the time, performing complete equipment and supply checks, demonstrating careful and safe ambulance operations, following policies and procedures and protocols, following orders.
	4	Can be trusted to function independent of all but minor supervision, does not need to be reminded to perform routine maintenance checks, follows the letter and spirit of all rules, regulations, policies and procedures.

	5	Functions independently and able to correct mistakes by self-reflection, able to assist in the development of rules, regulations, policies and procedures, will assist in monitoring fellow students in the completion of tasks and may be able to assist fellow students identify weaknesses and strengths.

General Comments:

_____ _____

Signature of person completing form Date

_____ _____

Printed Name Title

_____

Student Signature

Student should sign form only if conference is held following evaluation. Student agreement of ratings is not required for form to be completed and forms may be completed anonymously.

APPENDIX VII: Guidelines for activities and classroom exercises on ethical issues

Activities and classroom exercises

A. Sources of ethical issue material

1. Internet sites
2. Print based
3. Current events
4. Actual EMS calls and scenarios
5. Colleges and universities
6. Ethical think tanks and centers

B. Group discussion/debate

1. Present a case or scenario of an ethical issue
2. Divide the class into 6 groups and assign one of the theories just presented to a group for discussion
3. After 15-20 minutes have each group defend a particular ethical theory as it relates to a case or scenario you presented

C. Case scenarios

1. Provide several short case scenarios and ask students to do the following:
    a. List decisions open to you in each scenario
    b. State what decision you think is the right one
    c. Explain why you think your decision is the right one
    d. Explain what theory you are aligned with in making your decision
2. Allow students 5-10 minutes to think about each scenario before comparing information with the class

D. Role-playing

1. Choose a case study and have volunteers role-play various sides of the issue to present "their side of the story"
2. The purpose of this is to help student gain perspective by attempting to learn another point of view
3. If you already have knowledge of student opinions on certain issues it may be helpful to have a student role-play an opinion that is diametrically opposed to their personal feeling and beliefs

E. Debates

1. Present a case and allow students some time to prepare their viewpoint on the issue.

2. Conduct the session like a real debate and allow students to challenge and defend each other's opinions

Appendix VIII: Classroom Arrangement Strategies

Traditional Lecture

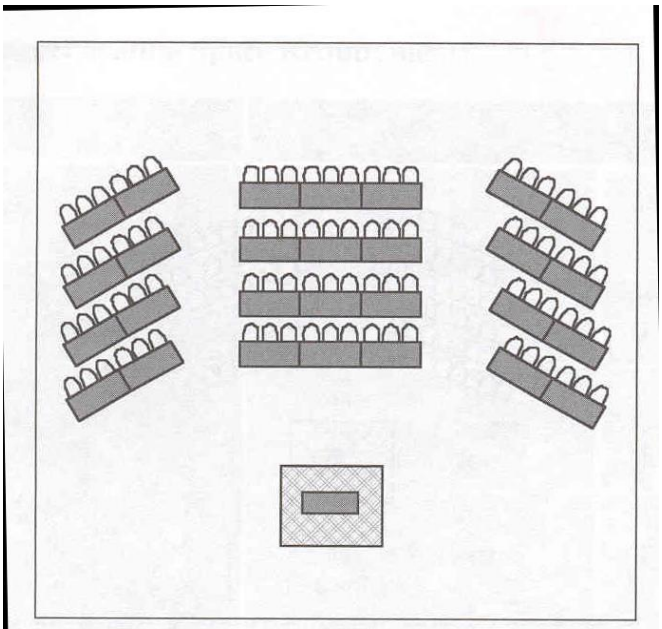


Figure 4. Standard Schoolroom Setup

Theater Style

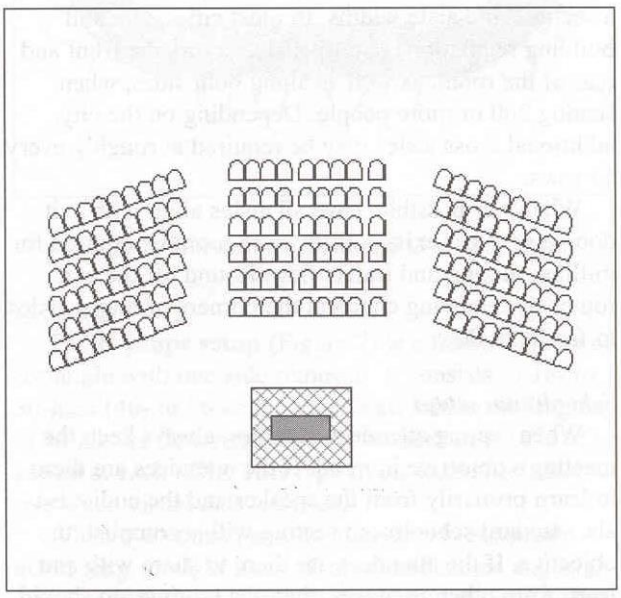
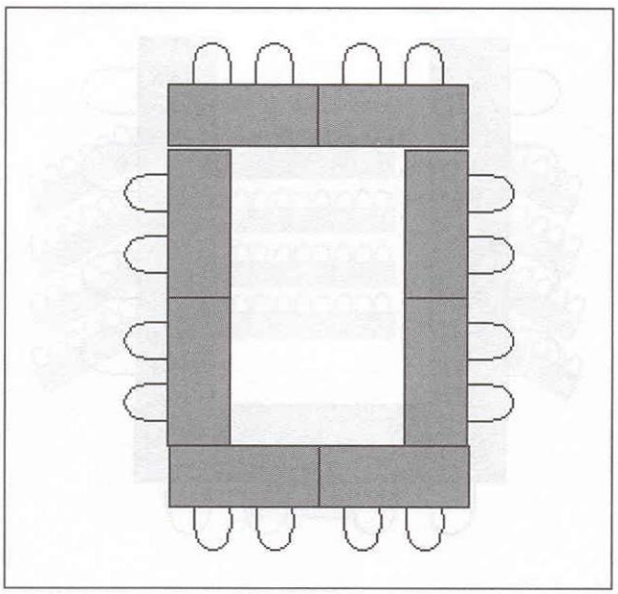
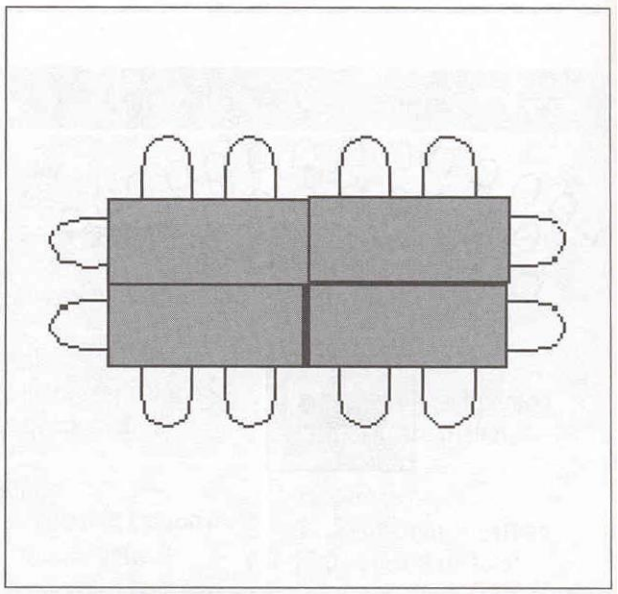


Figure 3. Auditorium or Theater-style Setup

Circle, Square and Rectangle – Open



Circle, Square and Rectangle – Closed



Partial with Open Area

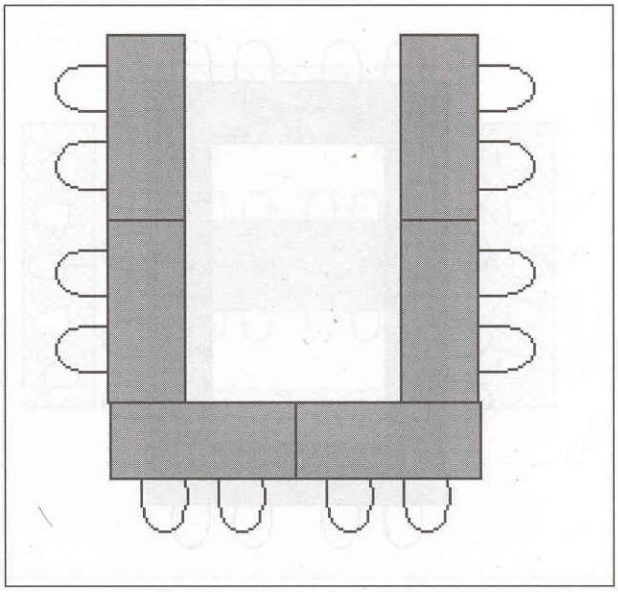
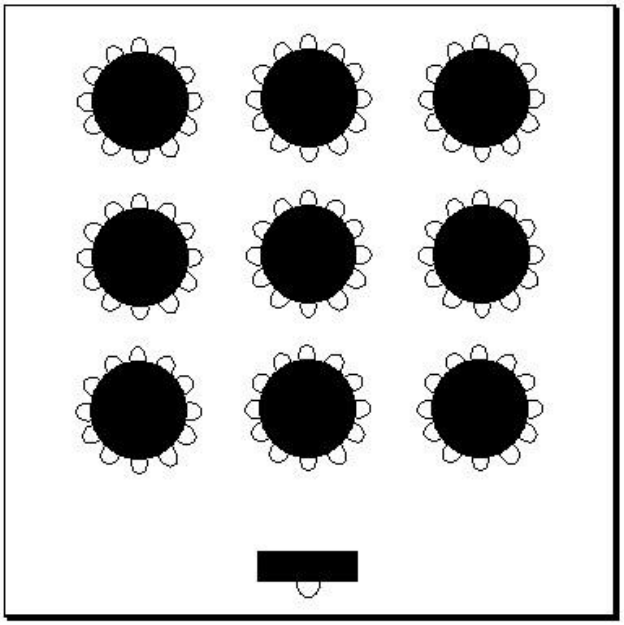


Figure 7. U-shape Setup

Group Work



APPENDIX IX: Bloom's Taxonomy of the Domains of Learning

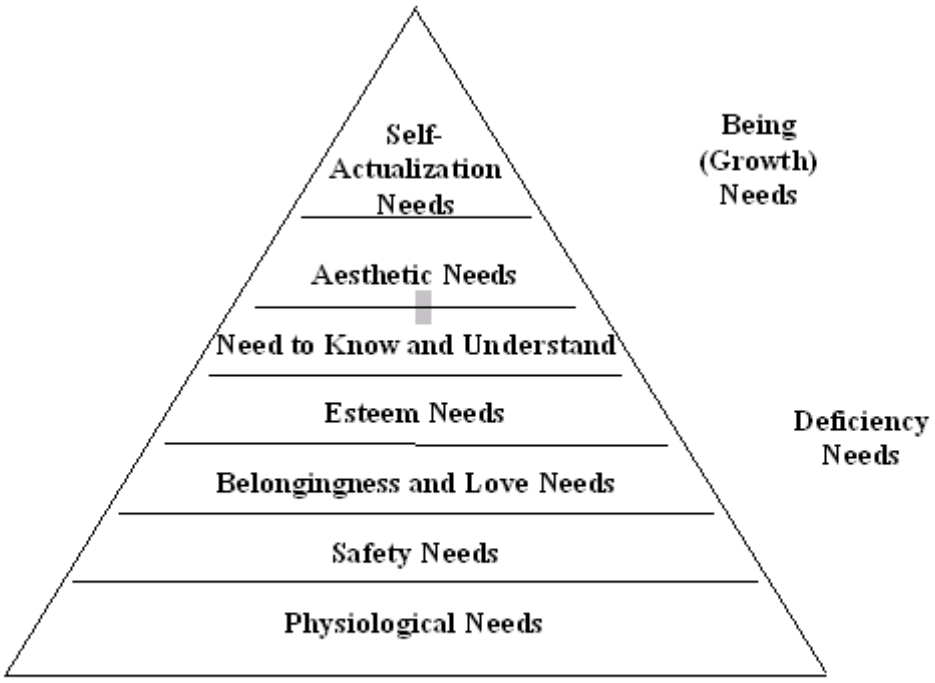
Figure 8-III-A: Bloom's Taxonomy of the Domains of Learning by Degrees of Sophistication

Cognitive Domain	Psychomotor Domain	Affective Domain
Knowledge	Imitation	Receiving
Comprehension	Manipulation	Responding
Application	Precision	Valuing
Analysis	Articulation	Organization
Synthesis	Naturalization	Characterization
Evaluation		

Figure 8-III-B: Bloom's Taxonomy by Level

Level	Cognitive Domain	Psychomotor Domain	Affective Domain
Level 1: Knowledge (low level)	Knowledge Comprehension	Imitation Manipulation	Receiving Responding
Level 2: Application (intermediate level)	Application	Precision	Valuing
Level 3: Problem solving (high level)	Analysis Synthesis Evaluation	Articulation Naturalization	Organization Characterization

APPENDIX X: Maslow's Hierarchy of Needs



Maslow's Hierarchy of Needs

APPENDIX XI: Lesson Plan Outline

Audience description

Pertinent needs assessment information and prerequisites

Lesson goal(s)

Cognitive objectives

Psychomotor objectives

Affective objectives

Recommended list of equipment and supplies

Recommended schedule

Suggested motivation activity

Content outline

APPENDIX XII: Unit #1 - Pathophysiology and Management of Anaphylaxis

OBJECTIVES
After this unit of study, the student should be able to:

1. Describe the structures and functions associated with the immune system.

2. Discuss antigens:
    a. Examples
    b. Four routes of introduction into the body.
3. Explain the production of antibodies (the antigen/antibody reaction).

4. Detail the physiology and pathophysiology of anaphylaxis.

5. Explain the acid/base and electrolyte imbalances resulting from anaphylaxis.

6. Discuss the effects of the pathological anaphylactic reaction on the following:
    a. Respiratory system
    b. Cardiovascular system
    c. Skin
    d. Central nervous system
    e. Gastrointestinal system

7. Identify the two substances released by mast cells during anaphylaxis.

8. Identify the signs and symptoms of a patient with pathological anaphylaxis as related to:
    a. Respiratory system
    b. Cardiovascular system
    c. Skin
    d. Central nervous system
    e. Gastrointestinal system

9. Describe the assessment and history (including pertinent negatives) of the patient with anaphylactic shock.

10. Identify the causes and treatments for anaphylaxis.

11. List the priorities of patient assessment and treatment for anaphylaxis.

12. Complete a drug card and discuss the following aspects for epinephrine, benadryl, Solu-Medrolâ steroid, to include (*information for both pediatric and adult):
    a. trade name
    b. generic name
    c. classification
    d. actions
    e. dosage and route(s)
    f. indications
    g. contraindications

h. precautions
i. side-effects
j. indications
k. toxic effects

13. Define and explain the following terms:
    a. anaphylaxis
    b. antigen
    c. antihistamine
    d. bronchospasm
    e. histamine
    f. hives
    g. immune system
    h. mast cell
    i. shock
    j. steroid
    k. urticaria

Pathophysiology and Management of Anaphylaxis

lesson	**Topic Outline**	**Assigned Reading**	
1	Review Shock Syndrome	Paramedic Emergency Care	Chapter 12,
	definition parameters aerobic metabolism anaerobic metabolism		
	Antigens	Paramedic Emergency Care	Chapter 25 (& other assigned readings)
	definition examples method of introduction		
2	Antibodies	Physiology for the Health Related Professions	Chapter 3
	immune system definition production		
	Anaphylaxis	Physiology for the Health Related Professions	Chapter 3
	pathophysiology effects on systems signs and symptoms patient assessment patient history management		
3	Pharmacological Agents	drug cards and master file	
	oxygen epinephrine a) 1:1000 b) 1:10,000 diphenhydramine 4) aminophylline		

4	Skills practice selecting medication - epinephrine 1:1000 or 1:10,000 benadryl 25mgs or 50mgs Medication checklist - right medication, right route, right patient, right dose, clarity, date, etc. select site - obtain informed consent - administer medication - observe for action, reaction and side effects			*note: these skills are taught in another course and are only to be practiced here

Course Schedule
EMC 340
Tuesdays & Thursdays 09:15 - 11:30
Spring 2000 Dizney 234
(Refer to complete syllabus for further details)

Date	Lesson	Topic	Reading
01/18	1	Anaphylaxis	Paramedic Emergency Care Chapter 12 & 25
01/20	2	Anaphylaxis	Paramedic Emergency Care Chapter 12 & 25
01/25	3	Anaphylaxis	Anaphylaxis Paramedic Emergency Care Chapter 12 & 25
01/27	4	Anaphylaxis (skills)	

APPENDIX XIII: Daily Lesson Plan - Anaphylaxis Unit (Sample)

1. Review Shock Syndrome
2. Reason for lesson:
    a. To review the basic pathophysiology of shock, hypoperfusion and hemodynamic instability
    b. To review basic treatments for clinical conditions caused by shock, hypoperfusion and hemodynamic instability
3. Points to be reviewed:
    a. Definition of shock, hypoperfusion and hemodynamic instability
    b. Clinical signs and symptoms that are the parameters for assessing / diagnosing shock, hypoperfusion and hemodynamic instability
    c. Describing the causes, methods of differential diagnosis and treatments for aerobic metabolism
    d. Describing the causes, methods of differential diagnosis and treatments for anaerobic metabolism
4. Content and activities

	Content		Activities
Minutes			
00 - 20:00	Description of homeostasis, statistically normal vital signs		Students will be asked to explain the significance of each vital sign
20:00 - 1:00:00	Description of pH, aberrations of acid-base with metabolic and or respiratory etiologies		Scenarios appropriate to either metabolic or respiratory acid-base problems will be presented, students will make differential diagnoses
1:15:00 - 2:15:00	Descriptions of general treatments for acid-base with metabolic		After correctly assessing the etiology of the acid-base problem, students will describe general treatments (e.g., fluid versus oxygen and airway control)

	and or respiratory etiologies		
2:25:00 - 3:00:00			Practical demonstration of medication selection, drug dose calculation and administration using manikins and oranges

5. Summarizing the above concepts:

6. Evaluation: a simple quiz on the material covered above will be given. This quiz will include multiple choice and fill-in -the-blank items. Each item will be associated with a scenario similar to the ones covered in class.

7. Assignment: a set of 5 scenarios will be given for students to assess. These scenarios will include cases that acid-base problems that include both respiratory and metabolic components in each scenario.

APPENDIX XIV: Confined Space Rescue – Awareness (Sample)

Course Description:

This course is designed to provide adequate education and training for personnel who have potential to be first responders to a confined space rescue incident. This course provides information on identification of confined spaces, common hazards associated with confined spaces, and operational limitations for the first responder.

Course Objectives

Terminal Objective:

To offer safe scene management and emergency operations during a confined space incident. This is designed to prevent injury or death to the rescue worker while operating within applicable laws and administrative policies.

Enabling Objectives:

Upon completion of this course, the firefighter shall demonstrate the ability to:

Related Performance Standards:

- NFPA 1001: 4-4.2 (1997 edition)
- WAC 296-305-05003
- WAC 296-62-145, Part M

Course Materials

Suggested Materials:

- Essentials of Firefighting, IFSTA 4th Edition, chapter 7
- Applicable policies and procedures
- Video – Confined Space Rescue, First Due Rescue Company; American Safety Video Publishers
- Student handout – Confined space entry permit
- Confined space quiz and answer key

Course Overview

Preparation	**15 Minutes**
Introduction/Motivation	
I. Presentation	**175 Minutes**
Definitions/Training Levels	
Types of Confined Space	
Associated Hazards	
Video-Confined Space Rescue	
Roles and Responsibilities	
Legal requirements	
Conclusion	
II. Application	**30 Minutes**
Discussion Questions	
III. Evaluation	**20 Minutes**
Quiz (20 questions)	

I - Preparation	15 Minutes
1. Introduction/Motivation Introduce self, class, and any special concerns or conveniences. **Cover course objectives.**	
II – Presentation	**90 Minutes**
Explain: **1. Define confined space and training levels** This tends to be a High risk / Low frequency type of incident, however, with the area growth and vast amount of construction the potential for an incident is much greater. <u>TECHNITIAN (40-60 hours training)</u> - Special skills and retrieval systems, patient evacuation, communications and command, familiarity with various types of confined spaces, monitoring-assessment-ventilation techniques. **<u>THIS IS NOT YOU!!!</u>** <u>OPERATION (several days training)</u> - Safe entry and rescue techniques, atmospheric monitoring, assess hazards and risks. **<u>THIS IS NOT YOU!!!</u>** AWARNESS (few hours training) – Recognize, secure, and call for resources. **THIS WILL BE YOU!!!**	

2. Other key definitions

-

These are not the only definitions associated with Confined space rescue, but are the critical ones you should know and understand.

3. Types of confined space

Trench / excavation: (Be sure to cover Trench in detail explaining to students that while considered by standards to be different from confined space techniques, Awareness level roles and responsibilities remain the same.)

- All soils considered unstable for rescuers concern; after all, rescuers are most likely there because of a previous collapse

- Trench defined as excavation deeper than it is wide

- ≥ 4' depth requires shoring, >20' requires engineered shoring

- Means of exit required w/in 25' of work area

- Spoil pile must be >2' from excavation

- Required shoring material is 6"x6" stock (Rescue argues 4"x4"is acceptable).

Vaults:

Most common vaults in our area are underground utility and mechanical Vaults.

Manholes:

Could be access to a vault but more common in our area to be access to sewer, water, and storm drain systems.

Storage tanks:

Above or below ground holding tanks for fuel, water, septic, or other.

Building collapse:

Being in an earthquake prone area and having older structures that have not been retrofitted, we have a good potential for structural collapse. Explain how voids can be created within a fallen structure.

Silos:

Luckily we don't have many, if any at all, within our area. These are death traps with special considerations. Used in grain and other such material storage.

Caves or mines:

Again, we don't have many to worry about. Keep in mind atmospheric and collapse problems.

4. Hazards associated with confined space

Atmospheric problems - This is the greatest reason for concern in most confined space situations and account for 60% of confined space deaths. In confined spaces, many gasses linger and present an IDLH condition both in the form of inhalation dangers as well as flammable / combustible (LEL) dangers. Many of these gasses, which displace the oxygen, are colorless, odorless, tasteless, and deadly. Discuss briefly some of the effects of gasses that may be present in a confined space such as CO, CO2, Methane, and Hydrogen Sulfide.

Fall hazards - Most confined space configurations are below ground or elevated and are accessed by steep ladders. These ladders are usually slippery and are made with small foot surfaces (i.e. steps in a manhole)

Electrical or mechanical hazards - Vaults that store these items will create an extra hazard inside a confined space. If possible secure power to reduce risk.

Engulfment danger - This is a special consideration in confined space where the area can be immediately Filled or flooded with gas, liquid, or fire with little or no warning.

Collapse potential - In trench rescue or building collapse scenarios where scene is already unstable (thus the reason for rescue), expect further deterioration of the area.

Equipment limitations - Bunker gear while being good heat protection is poor protection from chemical and/or corrosive agents. SCBA's are limited in confined space because of their bulkiness. Need proper tools and equipment to ensure safe operation, including fall protection, which we may not have.

Improper training / manpower - Rescuers do not plan to die when trying to help those in need. These are good people with good intentions that lack understanding of the situation. They are unable to recognize all hazards and lack knowledge on potential risks. Confined space emergencies are VERY labor intensive; make sure you have ample manpower.

II – Presentation, Video **Show video** – Confined Space Rescue	**25 Minutes**
II – Presentation, continued	**60 Minutes**

5. Roles and responsibilities of the first responder

IMS

For a successful operation, it is imperative that command structure is developed early. Start IMS to handle the worst and downgrade as necessary for it is easier to reduce command structure than to expand it after operations begin.

Evaluate

Figure out if there is a confined space emergency to begin with, determine the number of patients (if any), and determine if it is rescue vs. recovery.

Hazards

Identify if any hazards are present, to what extent, and special considerations because of hazards. Is there any type of contamination present or possible (HazMat)? If so, figure type, extent, and problems it may create like where contaminants are going.

Handout

Points / persons of interest

If possible, identify job foreman or someone else involved in incident prior to emergency and DO NOT let this person go. They are a valuable source of information. Identify MSDS, existing ventilation systems, points of entry, and if there is an entry permit. Fire department can use their entry permit if available. If not, department can produce their own. In any case, one must be present before entry is made.

Shut down / lock out

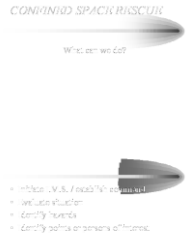
When performing shut down, be careful that it won't shut down or disable essential systems such as ventilation equipment.

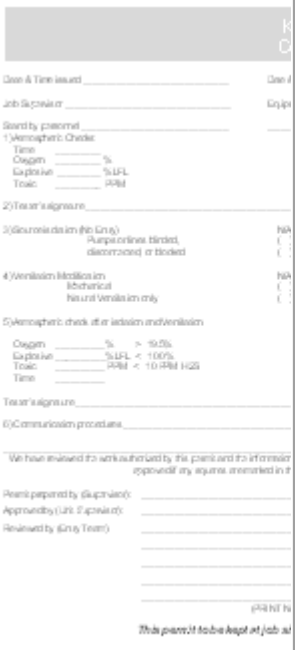
Ventilation

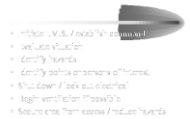
Begin ventilation procedures if possible, the earlier the better. Do not ventilate with pure O2.

Secure / reduce hazards

Establish hot, warm, and cold zones and stay out. Restrict access by everyone, evacuate necessary areas, and shut off, move, or stabilize equipment around site.







II – Presentation, continued	20 Minutes
6. Legal requirements These are in accordance with NFPA 1001 and WAC 296	
III – Application	**20 Minutes**
1. Review / recap Restate in summary the course objectives to confirm student understanding.	

Discuss

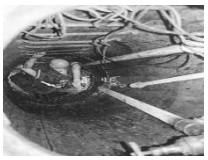
2. Suggested Discussion Questions

Lead d a guided discussion based on the following photographs:

1. Type = vault, manhole, tank; Hazards = IDLH atmosphere, fall, engulfment, mechanical; Actions = identify, set up command, isolate.

2. Type = trench; Hazards = IDLH atmosphere, fall, collapse; Actions = identify, set up command, isolate.

3. Type = well, manhole; Hazards = IDLH atmosphere, fall, engulfment; Actions = identify, set up command, isolate.

	 
III – Application, continued	
Lead a guided discussion based on safety systems in the following photographs: 1. Ventilation, equipment, training levels. 2. Shoring, equipment, training levels.	

	
4. Conclusion If you leave this class with anything, the most important thing to remember is, <u>First responders must not enter confined spaces!!! Even if there are victims that may be rescued.</u>	
III. Evaluation	**20 minutes**
1. Performance Evaluation Have each student complete quiz.	

APPENDIX XV: Use of Safety Gear inside A Fire Scene (Sample)

<u>Instructor pre-planning:</u>

LESSON OBJECTIVE: By the end of this lesson, the student will be able to discuss at least four concepts involving safety inside a burning building, using case studies and role-play.

TASK ANALYSIS: Concepts to be introduced include CAL-OSHA mandates, exiting the fire scene when the Vibra-Alert sounds, activation of PASS alarm prior to entering the building, and proper fastening of safety gear.

The Lesson Plan

Warm up/ Review: Distribute roles for students to act out during the discussion. Once students are ready to play their "part", introduce the safety lesson by preparing the participants for watching a video described below.

Presentation or Demonstration: Play the video that presents the case studies of the two firefighters who were seriously injured during a fire.

Student Practice: After the video is completed, lead a whole group discussion about safety issues that were encountered by the firefighters. Allow pros and cons to develop, but ensure that ultimately the message of mandatory safety practices is brought out.

Evaluation/Closure: To conclude this session, ask each participant of the discussion to answer a summary question based upon the task analysis. Questions to be presented include:

1. Who mandates our use of safety equipment during the fire scene?
2. When should one begin exiting the fire scene, in order to avoid potential problems with the SCBA equipment?
3. Why should the PASS alarm be activated prior to entering the fire scene?
4. How should the outer firefighter safety clothing be worn during the fire scene?

APPENDIX XVI: EMS Student Handbook Sample

EMERGENCY MEDICAL TECHNICIAN - BASIC

TRAINING PROGRAM

TABLE OF CONTENTS

MISSION STATEMENT

(Place here)

The Mission of the Fire Department is to:

- Protect the lives and property of the people of our area from fires, natural disasters, and hazardous materials incidents**;**
- Save lives by providing emergency medical services;
- Prevent fires through prevention and education programs; and,
- Provide a work environment that values cultural diversity and is free of harassment and discrimination.

Introduction

Welcome to the EMS Academy EMT-Basic Training Program. On July 1, 1997 the Fire Department assumed the role as the primary EMS provider in this city and county. The EMS Division was created to:

- Receive all 911 requests for emergency medical service;

- Initiate appropriate response of personnel and response;
- Treat and stabilize prehospital emergencies;
- Alleviate pain and suffering of the sick and injured; and,
- Transport the ill and wounded in a safe and expeditious manner to the appropriate medical facility.

When you complete this program, you will join the 70% of the Fire Department uniform rank that make up the cornerstone of the EMS Division - the Emergency Medical Technician - Basic. Of all of the calls for service the Fire Department handles annually, nearly 80% of them are for medical assistance. The EMT-B will respond to a large proportion of these calls, will provide the bulk of the initial field care, and will assist the EMT-Paramedic in providing further medical intervention.

As the EMS system evolves it will be likely that the role of the EMT will expand in both scope and responsibility. Therefore it is imperative that you become proficient in your skills and practice of prehospital medicine. The EMS Academy staff will support you in your education and practice; however they will not carry you! You must embrace this course as you would with all other courses at the Fire College. This is an intensive course, and you must avoid falling behind. Please read through these first few pages to determine what will be expected of you.

Finally, recognize that being an EMT-B fits in with the role of being a Firefighter: This program will help prepare you for a rewarding, life long profession of providing protection and service to our citizens and visitors.

General Information

Location

The EMS Academy EMT-Basic Program is (insert location here.)

Hours

The EMT-Basic Program will generally meet on Mondays, beginning May 18, 1998. The hours of the program will be from 0800 to 1730 hours. A mandatory CPR class will be held on Thursday May 14.

Lunch will be from 1230 to 1310 hours, unless scheduling mandates a change.

In general the classrooms and labs are open Monday through Friday, from 0730 to 1700 hours. Office hours for instructors will be listed.

Daily Schedule

The daily schedule will generally follow this format:

0700 - 0800 Remediation (makeup period for quizzes, skills)

0800 - 0830 Quiz

0845 - 0900 Pretest

0900 - 1230 Lectures

1230 - 1310 Lunch

1310 - 1700 Skills Lab

1700 - 1730 House chores

The program schedule may be found beginning on page 14. This schedule lists the reading assignments and exam schedule for the program.

Parking

You may park in the lot near the Log Cabin, found near the building. The US Parks Police Department has asked everyone to not park in the front or side of their building.

Attendance

This is a very intensive course, with large amounts of information and practice scheduled for each session. It is required by the state that each EMT-B student must attend 110 hours of instruction. Therefore it is imperative that you are punctual. Class will begin on time; if you arrive more than 1 minute late you will marked as "tardy" for that day. If you arrive more than 30 minutes late you will be marked "Absent Without Leave - AWOL". You may not miss more than two (2) classes during the didactic (classroom) phase. Being marked absent from more than 2 sessions will result in being dropped from the program. You may not miss ANY sessions during the ride-a-long phase.

If you know that you will miss a class for the rare unforeseen emergency, i.e., "Rules for Recruit Members #18 - Injuries", you must contact the primary instructor prior to that class. All hours missed will need to be made up in the form of essays on the information presented that day. The test or exam must be made up during the remedial hour of the following week.

Smoking

Smoking is prohibited in the building.

Chemical Substance Use

If you are seen or suspected of drinking alcohol or using illicit drugs during program hours, you will be immediately suspended from the program, pending investigation. You will be reported to the DOT Captain in charge of Probationary Training. Refer to the Department Policy and Procedure Manual for further information.

Discrimination

It is the policy of the EMS Academy to provide equal opportunity for training and education regardless of race, gender, sexual orientation, religion, age or ethnicity.

Rules for Recruit Members

Other Division of Training Rules for Recruit Members will apply during the EMT-Basic training program.

Staff and Contact Numbers

(Your Program Contact information would be inserted here.)

Program Responsibilities

Performance Standards

Tests - **You must score 75% or better on each test to complete the program**. You will be able to remediate tests or exams as necessary. Remediation will be in the form of 1) a review session that identifies your weaknesses, and 2) a remediation test. Each remediation must occur within one (1) week of the original test. The remediation test or exam may not be presented in the same format as the original test.

Exams - **You must score 75% or better on the midterm and Final exam.** The remediation policy is as listed above.

If you do not achieve a 75% or better on the remediation quiz or exam, you will be recommended for termination through the Chief of the Department.

You may also be recommended for termination if after three (3) original (not remediation) consecutive weekly tests, a score of 100% on the next quiz would be insufficient to attain a 75% average.

Skills - **You must score a 75% or better on every manipulative skill.** If you fail to attain a passing grade on a given skill, you will be scheduled for re-evaluation. If, after two re-evaluations, you fail to attain a passing grade, you will be recommended for termination through the Chief of the Department.

You will accrue EMT deficiency points for skill scores below 75%. The schedule is similar to the Fire College schedule:

74% - 72% One (1) EMT deficiency point

71% - 68% Two (2) EMT deficiency points

67% - 64% Three (3) EMT deficiency points

63% - 60% Four (4) EMT deficiency points

59% - below Five (5) EMT deficiency points

EMT deficiency points are cumulative throughout the recruit training period. You will be sent to the Deputy Chief of Administration for a conference when you accumulate a **total of ten (10) EMT deficiency points** in any combination derived from substandard performance in manipulative skills.

If you accrue a total of **fifteen (15) EMT deficiency points or more**, you will be recommended for termination through the Chief of the Department.

Whenever an EMT deficiency point is assigned for substandard performance, a conference with the supervising Captains will be scheduled.

Textbook

The Program will be using the eighth edition of *Emergency Care,* by Brady Publishing. The Department will issue books before class begins. You are encouraged to purchase the book for your own reference. If you do not purchase the book, you must keep it in a neat and presentable condition. The textbook shall be returned to the Program upon completion of the course.

Ambulance Ridealong

You will be required to attend one (1) ambulance ridealongs during the Program. During the ridealong you will expected to participate in direct patient care activities. You will also be required to document at least two patient contacts per ridealong. These contacts will be documented on the Clinical Report Forms, which may be found in the appendix of this handbook.

The paramedic will review your activities during the ridealong, and document his/ her comments on the Student Evaluation form. Your hours of contact time must also be documented, on the Verification Form. This is also found in the appendix.

Emergency Department Rotation

Currently the program is not mandating observation time in the Emergency Department setting. However, if you would like to spend time in this setting, you may do so after completing the required immunizations and release forms. Please contact the Program staff if you are interested.

Dress Code

You are expected to wear your probationary firefighter uniform during the didactic phase of the Program; however you are permitted to wear your PT clothing during class. During the ride-a-long phase you will wear blue pants, a white shirt, and dark shoes.

Professional Conduct

It is the intent of all instructors to provide you with an environment that is conducive to learning. Conduct disrupting the classroom, or showing lack of respect for staff, guests, or other students will not be tolerated, and shall reported to the DOT Captain in charge of Probationary Training.

Building Maintenance

You are expected to clean the classrooms and common areas of the building at the end of each class. House chores will be done between 1700 - 1730 hours.

Successful Completion Criteria

Upon successful completion of this program, you will be eligible for the EMT-B certification process as provided by the County EMS Agency. Successful completion include all of the following:

1. Attending all sessions of the program, or makeup of hours as assigned.

1. Completing all assigned homework.

2. Achieving a score of 75% or better over a three weekly test average.

3. Achieving a score of 75% or better on the Midterm and Final exams.

4. Achieving a score of 75% or better on all skill exams.

You will be issued a course completion certificate that will permit you to apply for EMT certification in *(insert your city/state information here.)*

SECTION 5: COURSE SCHEDULE

97th Class Course Schedule

Week and Date	Pretest will cover	Exam will cover	Reading Preparation	Materials Presented	Skill(s) Lab
1: May 14, 1998	BLS Healthcare Provider	BLS Healthcare Provider	AHA BLS Text Brady pp. 797 - 823	Introduction to course CPR	CPR

2: May 18	Week 2 reading	None	Chapters 1, 2, 3, 14, 15 Appendix B: Stress in EMS Medical terms pp. 842 - 849	Introduction to EMS Well Being of the EMT Ethical/Legal Issues Communications Documentation	Documentation Scenarios
3: May 28	Week 3 reading	Week 2	Chapters 4, 5, 7,8, 9 pp. 826 – 837	Anatomy & Physiology Vital Signs and History Scene Size-up Intro Assessment	Vital Signs Lifting/moving Scene Assess Initial assessment
4: June 1	Week 4 reading	Week 3	Chapters 10, 11, 12, 13	Assessment - Trauma Assessment - Medical Assess.- pedi + geriatric	Assessments
5: June 8	Week 5 reading	Week 4	Chapter 6	Airway A&P Airway and Ventilation Adjuncts and Oxygen Intro Advanced Airway	Basic Airway Review Assess.
6a: June 15	Week 6a reading	Week 5	Chapters 25, 26	Trauma A& P	Bleeding Control

				Bleeding and Shock Soft Tissue Injuries	Shock Mgt.
6b: June 18	Week 6b reading	Week 6a	Chapters 27, 28	Musculoskeletal Care Head and Spinal Injuries	c/spine supine c/spine seated splinting

Week and Date	**Pretest will cover**	**Exam will cover**	**Reading Preparation**	**Materials Presented**	**Skill(s) Lab**
7: June 22	Week 7 reading	Week 6b	Review 25 - 28	Major Systems Trauma Review for Midterm	Skills Review Assessment Review
8: June 29	**None**	**Midterm 1-6b**		**None**	**Skills Examination**
9: July 6	Week 9 reading	Week 7b	Chapter 16, 17	General Pharmacology Respiratory A&P Respiratory Emergencies	Respiratory Scenarios
10: July 13	Week 10 reading	Week 9	Chapter 18	Cardiac A&P Cardiac Emergencies	Cardiac Scenarios

11: July 20	Week 11 reading	Week 10	Chapters 19, 20, 21	Diabetic A&P Diabetic Emergencies Allergies and Poisonings	Diabetic/ Allergies/ Poisoning Scenarios
12a: July 27	Week 12a reading	Week 11	Chapters 22, 23	Environmental Behavioral	Environmental/ Behavioral
12b: July 31	Week 12b reading	Week 12a	Chapter 24	OB/GYN	OB/GYN Scenarios
13: August 3	Week 14 reading	Week 12b	Chapter 29	Pediatric Emergencies	Peds Scenarios
14: August 10	Week 15 reading	Week 13	Chapters 30, 31, 32	Ambulance Operations Gaining Access Overviews (MCI, HazMat) Review for Final	MCI Drill Review
15: August 17	**None**	**Final 1 -14**	**Review 1 -32**	**All**	**Skills Exam**

EMERGENCY MEDICAL TECHNICIAN - BASIC

TRAINING PROGRAM

SECTION 6: CHAPTER OBJECTIVES

CHAPTER 1: INTRODUCTION TO EMERGENCY MEDICAL CARE

1. Describe the brief history of EMS development

1. Be able to explain the various components of the EMS system.

2. Describe the role and function of the Emergency Medical Technician - Basic.

3. Describe the responsibilities related to personal safety.

4. Describe the process of quality improvement.

5. Define the role of medical direction and medical control.

CHAPTER 2: THE WELL-BEING OF THE EMT - BASIC

1. Understand the reactions and changes that the EMT-Basic may feel when faced with stress.

1. Describe the different stages people may go through when dealing with death and dying.

2. Explain how the EMT might recognize and deal with stress from within as well as from outside factors.

3. Explain the importance of establishing scene safety.

4. Describe the concept of body substance isolation.

5. Describe the steps an EMT should take for personal protection from airborne and bloodborne pathogens.

CHAPTER 3: MEDICAL/LEGAL AND ETHICAL ISSUES

1. Define and explain the following legal concepts: scope of practice, duty to act, negligence, and abandonment.

1. Define and describe the following legal concepts: various forms of consent, refusal of medical care, role of minors, Do Not Resuscitate orders.

2. Describe the difference between assault and battery, and their implications to the EMT.

3. Explain the importance of maintaining patient confidentiality.

4. Describe the steps an EMT should take when protecting a crime scene.

5. Explain when an EMT is required to make notifications to law enforcement or other agencies.

CHAPTER 4: THE HUMAN BODY

1. Identify various topographic terms.

1. Describe the difference between anatomy and physiology.

2. Describe the anatomy and physiology of the major body systems.

CHAPTER 5: LIFTING AND MOVING PATIENTS

1. Explain why knowledge of body mechanics protects the EMT.

1. Describe the safety precautions and guidelines as applied to lifting and moving techniques.

2. Explain when an emergency move of a patient may be necessary.

3. Explain the uses of various patient-carrying devices.

CHAPTER 6: AIRWAY MANAGEMENT

1. Describe the general anatomy of the respiratory system.

1. Describe the patient with the signs of respiratory distress.

2. Explain why aggressive airway management affects the survivability of the patient.

3. Explain why a mechanism of injury may affect the opening of an airway.

4. Describe the performance of a head tilt, chin lift.

5. Describe the performance of a jaw thrust.

6. Explain why suction is important in maintaining patency of an airway.

7. Describe the function of artificial ventilation.

8. Explain the various techniques of providing artificial ventilation.

9. Describe the importance and use of airway adjuncts.

10. Define the components of an oxygen delivery system.

11. Explain why increased concentrations of oxygen affect the survivability of the critical patient.

12. Contrast and compare the uses of the nasal cannula and nonrebreather mask.

CHAPTER 7: SCENE SIZE-UP

1. Describe the various hazards an EMT might encounter at a scene.

1. Explain how an EMT might survey the scene in a consistent manner.

2. Describe common mechanisms of injury.

3. Explain the importance of identifying the number of patients encountered.

4. Explain the reason for identifying the need for additional resources.

CHAPTER 8: THE INITIAL ASSESSMENT

1. Explain the importance of establishing an early general impression of the patient's condition.

1. Describe the steps in the initial or primary assessment.

2. Explain how the EMT would establish an early impression of the patient, based upon the findings of the initial assessment.

3. Explain how the EMT would identify and correct problems encountered in the initial assessment.

4. Explain how an EMT would prioritize a patient for transport, based upon findings from the initial assessment.

CHAPTER 9: BASELINE VITAL SIGNS AND SAMPLE HISTORY

1. Explain the importance of establishing baseline vital signs.

1. Describe how the various vital signs are ascertained and recorded: pulse, breathing, skin signs, pupillary reaction, and blood pressure.

2. Explain what blood pressure measures, and the meaning of systole and diastole.

3. Explain what SAMPLE is, and how it pertains to gathering history.

4. Describe the difference between a sign and a symptom.

5. Explain the importance of reassessing vital signs on a regular basis.

CHAPTER 10: THE FOCUSED HISTORY AND PHYSICAL EXAM: TRAUMA

CHAPTER 11: THE FOCUSED HISTORY AND PHYSICAL EXAM: MEDICAL

1. Compare and contrast the trauma and medical based focused history and examination approaches.

1. Explain why differences exist between trauma and medical histories.

2. Explain why differences exist between trauma and medical focused exams.

3. Explain why mechanism of injury is important to the assessment of the trauma patient.

4. Describe the steps necessary to complete a rapid trauma exam.

5. Identify the components of the detailed physical exam.

6. Explain the importance of the detailed physical exam in relationship to the focused assessment.

7. Describe the differences between the trauma and medical patient in the context of the detailed physical exam.

8. Describe how a medical history and assessment may be conducted on the unresponsive patient.

9. Explain the SAMPLE history pneumonic.
10. Explain why knowledge of past medical history affects the medical assessment and history taking.

CHAPTER 12: ONGOING ASSESSMENT

1. Discuss the reasons why assessments should be repeated during patient contact.

1. Identify and discuss the components of the ongoing assessment.

CHAPTER 13: PEDIATRIC, ADOLESCENT, AND GERIATRIC ASSESSMENT

1. Identify the developmental considerations for the following age groups: infants, toddlers, preschoolers, school age, and adolescents.

1. Describe differences in anatomy and physiology of the infant, child, and adult patients.

2. Differentiate the response of the ill or injured infant or child (age specific) from that of an adult.

CHAPTER 14: COMMUNICATIONS

1. Identify the order of patient information during a radio call.

1. Discuss the legal implications during communications.

2. Discuss the communication skills that are used between the EMT and patient, family, bystanders, and other health care providers.

CHAPTER 15: DOCUMENTATION

1. Identify the components of the written report.

1. Describe how patient information should be entered into the medical record.

2. Explain the legal aspects of accurate documentation of the patient record.

CHAPTER 16: GENERAL PHARMACOLOGY

1. Identify the medications that EMT's are able to deliver in the prehospital field.

1. Identify the prescribed medications that the EMT may be able to assist the patient in administration.

2. Describe the "four rights" of drug administration.

3. Identify methods of drug administration.

4. Describe the six most common categories of medication.

CHAPTER 17: RESPIRATORY EMERGENCIES

1. Describe the basic anatomy of the respiratory system.

1. Discuss the physiology of breathing.

2. Identify the signs and symptoms of respiratory distress.

3. Identify signs of inadequate gas exchange.

4. Discuss the difference between ventilation and oxygenation.

5. Describe the patient with COPD.
6. Describe the patient with asthma.
7. Describe the management of the patient in respiratory distress.

CHAPTER 18: CARDIAC EMERGENCIES

1. Describe the basic anatomy of the cardiac system.

1. Discuss the physiology of the cardiovascular system.
2. Describe the pathophysiology of CAD, angina, AMI, and CHF.
3. Describe the patient experiencing cardiac compromise.
4. Describe the management of the patient in cardiac distress.
5. Explain the concept of the "chain of survival".
6. Explain the importance of aggressive airway management and oxygenation in the cardiac arrest patient.
7. Explain the importance of early defibrillation in the cardiac arrest patient.
8. Describe the management of the patient in cardiac arrest.
9. Discuss the importance of solid interaction and coordination between EMS providers during a cardiac arrest.

CHAPTER 19: DIABETIC EMERGENCIES AND ALTERED MENTAL STATUS

1. Describe the basic components of the endocrine system.

1. Describe the pathophysiology of diabetes mellitus.
2. Identify the patient experiencing a diabetic emergency.
3. Describe the differences between diabetic coma and insulin shock.
4. Describe the management of the diabetic patient.
5. Describe the components of AEIOUTIPS.

CHAPTER 20: ALLERGIES

1. Describe the basic anatomy of the immune system.

1. Describe the pathophysiology of an allergic reaction.
2. Identify the patient with anaphylaxis.
3. Describe the management of an allergic reaction.

CHAPTER 21: POISONING AND OVERDOSE EMERGENCIES

1. Describe how poisons enter the body.

1. Identify the patient experiencing an overdose or poisoning.
2. Describe the management of the poisoned or overdosed patient.
3. Discuss the issues associated with substance and alcohol abuse.

CHAPTER 22: ENVIRONMENTAL EMERGENCIES

1. Explain the physiology of heat generation.

1. Describe the pathophysiology of excessive heat gain and loss.

2. Describe the patient with hyperthermia.

3. Describe the management of the hyperthermic patient.

4. Describe the patient with hypothermia.

5. Describe the management of the hypothermic patient.

6. Describe the management of the patient with a localized cold injury.

7. Discuss the management of the near-drowning patient.

8. Discuss the management of the patient experiencing a SCUBA emergency.

9. Discuss the management of the patient with bites and stings.

CHAPTER 23: BEHAVIORAL EMERGENCIES

1. Define the behavioral emergency.

1. Explain the physiological factors for behavioral emergencies.

2. Discuss the management of the patient experiencing an emotional or psychiatric emergency.

3. Discuss the special considerations associated with the suicidal patient.

4. Identify the patient displaying aggressive or hostile behavior.

5. Describe the management of the aggressive or hostile patient.

CHAPTER 24: OBSTETRICS AND GYNECOLOGY

1. Identify the basic anatomy of the obstetrical patient.

1. Discuss the differences between the pregnant and non-pregnant patient.

2. Describe the stages of labor.

3. Describe the management of normal childbirth.

4. Describe the assessment and management of the newborn.

5. Describe the assessment and management of the mother.

6. Identify the childbirth complications.

7. Describe the assessment of the complicated childbirth.

8. Identify predelivery emergencies.

9. Describe the management of the predelivery emergency.
10. Discuss the considerations associated with sexual assault.

CHAPTERS 25: BLEEDING AND SHOCK

1. Describe the condition of shock.

1. Identify the stages of shock.

2. Identify the types of shock.

3. Identify the differences between venous and arterial bleeding.

4. Identify the differences between internal and external bleeding.

5. Describe the management of the patient in shock.

6. Describe the management of the bleeding patient.

CHAPTER 26: SOFT TISSUE INJURIES

1. Identify the anatomy of the skin and soft tissue.

1. Identify the major functions of the skin.

2. Describe the differences between closed and open wounds.

3. Describe the different types of open wounds.

4. Describe the management of the patient with blunt and penetrating trauma.

5. Identify the steps in the management of an open neck wound.

6. Identify the steps in the management of the open chest wound.

7. Identify the steps in the management of the abdominal injury.

8. Identify the types of burns.

9. Describe the classification of burns.

10. Identify the steps in the management of burns.

11. Describe the management of electrical injuries.

12. Describe the general principles of bandaging and dressing.

13. Describe the patient with pneumothorax, tension pneumothorax, traumatic asphyxia, hemothorax, and cardiac tamponade.

CHAPTER 27: MUSCULOSKELETAL INJURIES

1. Identify the anatomy of the muscular and skeletal system.

1. Describe the mechanisms of injury associated with musculoskeletal injuries.

2. Describe the general principles of splinting.

3. Describe the considerations associated with a midshaft femur fracture.

4. Describe the management of the patient with a musculoskeletal injury.

CHAPTER 28: INJURIES TO THE SPINE AND HEAD

1. Identify the anatomy of the nervous system.

1. Identify the anatomy of the brain, skull and spine.

2. Describe the mechanisms of injury associated with injuries to the head, neck and spine.

3. Describe the patient with a brain injury.

4. Describe the patient with a spinal injury.

5. Describe the management of a patient with a head or spinal injury.

CHAPTER 29: INFANTS AND CHILDREN

1. Define the pediatric patient.

1. Describe the developmental characteristics of infants and children.

2. Discuss the differences between pediatric and adult patients.

3. Describe the general approach and management principles with pediatric patients.

4. Discuss the broad categories of pediatric emergencies.

5. Describe the considerations of pediatric patients and trauma.

6. Describe the considerations of pediatric patients and abuse.

7. Describe the considerations of SIDS.

8. Identify the pediatric patient with croup and epiglottitis.

CHAPTER 30: AMBULANCE OPERATIONS

1. Identify the phases of an ambulance call.

1. Discuss the operations of an emergency vehicle in the context of motor vehicle law.

2. Identify basic equipment that should available in an ambulance.

3. Describe the methods used to clean and disinfect an ambulance and its equipment.

4. Explain the rationale for having an ambulance and its equipment for each response.

CHAPTER 31: GAINING ACCESS

1. Describe the purpose of extrication.

1. Identify personal safety equipment for emergency personnel during extrication.

2. Identify personal safety equipment for the patient during extrication.

3. Explain the importance of training for extrication.

CHAPTER 32: SPECIAL OPERATIONS

1. Describe the general management principles of a hazardous materials event.

1. Describe the general management principles of a multi-casualty incident.

2. Discuss the concept of triage.

3. Describe the incident command system and the role of the EMT.

TRAINING PROGRAM

SECTION 7: MANIPULATIVE SKILLS

MANIPULATIVE SKILL: Airway Management

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively manage a patient's airway using the appropriate equipment.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	5
OXYGEN ADMINISTRATION	25
1. "Cracks" full oxygen tank to clear valve outlet	2
2. Attaches regulator to oxygen tank. Ensures O-ring is in place Tightens regulator to tank securely with hand only Determines that regulator is in "Off" position	4
3. Opens main valve at least 1 turn Checks pressure on regulator Checks for leaks	3
4. Attaches oxygen adjuncts	5
Nasal cannula - places prongs in nose, tightens tubing around ears	
Nonrebreather mask - fills reservoir with oxygen, securely fits mask seal around mouth and nose	

5. Administers oxygen to patient	5
Nasal cannula - 4 - 6 liters per minute flow	
NRB mask - 10 - 15 lpm, allowing the reservoir to drain and fill with each respiration	
6. Reassess ventilatory status	3
7. Turns off regulator and drains pressure from system	3
BAG VALVE MASK	20
1. Opens airway with head tilt - chin lift or modified jaw thrust	5
2. Selects and inserts appropriate airway adjunct	2
3. Creates tight seal between mask and face	3
4. Ventilates patient by squeezing bag completely and steadily Observes for chest rise and fall Checks for gastric distention Checks for leaks	3
5. Hyperventilates patient with room air	2
6. Attaches BVM to oxygen tank	2
7. Sets regulator flow to at least 15 lpm	2
8. Ventilates patient at appropriate rate	1
ORAL PHARYNGEAL AIRWAY	15

1. Opens airway with head tilt - chin lift or modified jaw thrust	5
2. Determines correct size of OPA Measured from tip of earlobe to corner of mouth	4
3. Inserts OPA correctly Inserts with tip toward roof of mouth until it passes apex of tongue, then rotates airway 180 degrees	4
4. Reassesses ventilatory status	2
NASAL PHARYNGEAL AIRWAY	15
1. Opens airway with head tilt - chin lift or modified jaw thrust	5
2. Determines correct size of NPA Measured from tip of earlobe to tip of nose	2
3. Lubricates NPA with water soluble lubricant	2
4. Inserts NPA into right nares first, pushing straight down	4
5. Reassesses ventilatory status	2
FLEXIBLE (SOFT) SUCTION CATHETER	10
1. Prepares suctioning equipment Connects catheter and tubing to suction machine	2
2. Tests suction for vacuum	1
3. Determines depth of catheter insertion	1

Nose - tip of earlobe to tip of ear Mouth - tip of earlobe to corner of mouth	
4. Inserts catheter to measured depth	1
5. Creates vacuum	2
6. Suctions while withdrawing catheter, maximum 10 seconds	2
7. Reassesses ventilatory status	1
RIGID (HARD) SUCTION CATHETER	10
1. Prepares suctioning equipment Connects catheter and tubing to suction machine	2
2. Tests suction for vacuum	1
3. Determines depth of catheter insertion Mouth - tip of earlobe to corner of mouth	1
4. Inserts catheter to measured depth	1
5. Creates vacuum	2
6. Suctions while withdrawing catheter, maximum 10 seconds	2
7. Reassesses ventilatory status	1
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Controlling profuse bleeding

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively control profuse bleeding utilizing direct pressure, elevation, and pressure points. You will also be able to verbalize that the use of the tourniquet is a last resort measure to control a severe bleed.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Applies direct pressure to site of bleeding a) Uses sterile dressings b) Bandages securely with roller gauze or tape	15
3. If bleeding continues, applies more dressings without removing original bandaging	15
4. If bleeding continues, elevates affected extremity while maintaining direct pressure.	15
5. If bleeding still continues, applies enough pressure to pressure points to stop bleeding a) Femoral or brachial artery sites b) Use of the heel of hand or fingers	15
6. As a last resort, applies tourniquet to stop bleeding a) Placed just above wound site b) Wide band c) Tighten band with lever until bleeding stops d) Note time when tourniquet applied	10
7. Applies high flow oxygen to the patient	10
8. Places patient in modified trendelenburg position, if possible	10
TOTAL	100

COMMENTS:

MANIPULATIVE SKILL: Cardiac Arrest

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively manage a cardiac arrest with two other assistants. You will be able to competently demonstrate the operation of a Department semiautomatic defibrillator.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Performs initial assessment of patient's **A**irway and **B**reathing	15
3. Instructs Assistant #1 to ventilate patient 2 times with BVM	15
4. Assesses patient's **C**irculation.	15
5. Begins chest compressions, with 5:1 ratio a) Assistant #1 inserts OPA b) Supplies BVM to 100% oxygen	15
6. Instructs Assistant #2 to apply defib pads to patient's chest a) Assistant #2 places pads "to sandwich the heart" - posterior chest wall below left scapula, anterior chest wall below left nipple b) Attaches cables to pads c) Turns defib on d) Advises other crew members to stop BVM and compressions e) Depresses "analyze" function	10
7. Crew waits for "analyze" function to complete a) If "***no shock indicated***", EMT assesses for carotid pulse **(-) pulse, (-) breathing**: crew continues CPR for one minute, proceed to step 8 **(+) pulse, (-) breathing**: Assistant #1 continues BVM, Assistant #2	10

attempts blood pressure, EMT attempts **SAMPLE** history, proceed to step 8 **(+) pulse, (+) breathing:** Assistant #1 assesses adequacy of breathing, assistant #2 attempts blood pressure, EMT attempts **SAMPLE**, proceed to step 8 b) If "***shock indicated***" Assistant #2 assesses for crew safety Depresses "shock" function If condition 7(b) exists, delivers 2nd shock when prompted If condition 7(b) exists, delivers 3rd shock when prompted EMT assesses for carotid pulse, crew proceeds to 7(a)	
8. Assistant #2 depresses "analyze" function a) If "*no shock indicated*", repeat step 7(a) b) If "*shock indicated*", Assistant #2 repeats 7(b)	10
9. No further shocks are delivered, unless stacked shocks are interrupted	
TOTAL	100

COMMENTS:

MANIPULATIVE SKILL: Application of EKG leads

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to assist the EMT-Paramedic in attaching the patient to EKG leads.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Attaches cable end to monitor	10
3. Attaches electrodes to cable leads	15
4. Bears chest appropriately.	10
5. Attaches the white negative electrode to patient's right pectoris	15
6. Attaches the black ground electrode to patient's left pectoris	15
7. Attaches the red positive electrode to patient's left lateral chest wall at the level of T10	15
8. Turns monitor on	10
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Emergency Childbirth

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to safely and effectively deliver a newborn infant in the prehospital setting.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	5
2. Determines if delivery is imminent a) Due date of baby (EDC) - premature, term, late b) Gravida/Para condition c) Prenatal care/ expected complications d) Waters break/ bloody show e) Timing of contractions f) Urge to bear down or move bowels g) Checks for crowning	10
3. Prepares equipment for delivery a) Drape area if possible b) Bulb suction c) Clamps d) Towels, blankets, cap	5
4. As head appears, applies gentle pressure to head to reduce tearing of perineum	5
5. Suctions mouth, then nose of newborn w/ bulb syringe	10
6. Checks for cord around newborns neck If present, attempts to loosen cord with one finger, if too tight, rapidly clamps cord in two places and cut	5
7. Assists in delivery of shoulders and torso	5
8. Rapidly stimulates, dries and warms the newborn	10
9. Assesses newborn:	10

a) If baby does not begin crying or turning pink within 30 seconds, begin blow by oxygen b) If baby does not begin breathing or has respiratory rate < 30, begin BVM respirations c) If pulse rate is < 60, begin chest compressions a) If baby cries, turning pink, and has spontaneous movement, assess APGAR at 1 minute	
10. Clamp cord a) First clamp 6 - 8 inches from baby b) Second clamp 2 - 3 inches away from first clamp	5
11. Cut cord with scalpel or scissors	5
12. Wrap baby in dry blanket, give to mother, attempt nursing	5
13. Deliver placenta, place into plastic bag for evaluation	5
14. Massage fundus to encourage bleeding control	5
15. Assess baby 5 minute APGAR score	5
16. Assesses mother's vital signs	5
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: BVM use with an endotracheal tube

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively manage a patient's airway using a Bag Valve Mask with an ET tube previously inserted by the EMT-P.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	20
2. Attaches BVM to ET tube	20
3. Visually note depth of tube by markings on ET tube	20
4. Ventilates patient at appropriate rate	20
5. Observes adequacy of ventilation a) Observes chest rise and fall b) Feels for compliance of BVM c) Observes color changes of end tidal CO2 cap d) Has assistant auscultate lung sounds and gastric sounds	20
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Long bone extremity injury

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively manage a suspected extremity injury with the appropriate technique and equipment.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Directs assistant to support affected extremity	10
3. Exposes injury site	10
4. Assesses patient's CSM function in extremity **C**irculation - presence of pulse, equal to unaffected side May also check nail blanching **If pulse or blanching is absent, and extremity is cold to touch, attempt to straighten extremity once to restore circulation.** **S**ensory - patient feels physical stimulus applied to fingers or toes **M**otor - patient able to move fingers or toes	20
5. If open injury is noted, applies sterile dressing to site	5
6. If closed injury is noted, applies ice to site	5
7. Applies appropriate sized splint to extremity	5
8. Pads voids	5
9. Immobilizes extremity above and below injury	10
10. Immobilizes joints above and below injury a) Utilize sling and swath for upper extremity injuries, including shoulder b) Elevate lower extremity after splinting	10

11. Reassesses patient's CSM function	10
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Helmet Removal

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively remove a helmet from a patient's head while maintaining manual cervical spine stabilization.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Directs assistant to maintain cervical spine stabilization by reaching under the helmet and grasping mandible and occipital head	20
3. Releases helmet strap	10
4. Begins to remove helmet by expanding sides of helmet	15
5. Tilts helmet backward to clear tip of nose	15
6. Slowly rocks helmet from behind head	10
7. Exchanges manual stabilization with assistant	10
8. Maintains manual stabilization until spinal immobilization is complete.	10
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Impaled Object

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively stabilize an impaled object, with emphasis on a penetrating eye injury.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. If possible, places patient in supine position on backboard	10
3. Controls profuse bleeding if present	10
4. Stabilizes impaled object a) Cuts a stack of 4 x 4 gauze pads b) Places pads around object c) Tapes pads into place	10
5. Treats patient for shock with positioning and high flow oxygen	10
If the additional conditions are encountered:	
PENETRATING EYE INJURY	25
1. Covers patient's uninjured eye -Explains to patient	6
2. Stabilizes penetrating injury, or damaged globe	7
3. Covers injured eye -Uses paper cup or cone if possible	6
4. Secures covering	6

IMPALED OBJECT COMPROMISING ORAL AIRWAY	25
1. Inspects oropharynx for depth of penetration	6
2. If both ends of object are seen, removes the object by pulling it out in the direction that it entered the cheek.	7
3. If the tip of the object is impaled, or cannot be seen, object is stabilized in place	6
4. Suctions airway a necessary to maintain patent airway	6
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Intravenous setup

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to assist the EMT-P in setting up an intravenous (IV) infusion.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Receives IV solution from EMT-Paramedic	5
3. Confirms that the solution is appropriate, clear, non-expired	10
4. Attaches an extension set to an appropriate administration set	10
5. Closes roller clamp	5
6. Pulls protective caps off the IV solution bag and IV tubing	10
7. Inserts IV tubing into bag using aseptic technique	10
8. Squeezes drip chamber until half full with solution	10
9. Opens roller clamp	5
10. Allows fluid to run through tubing, expelling all air	10
11. Closes roller clamp	5
12. Maintains aseptic technique throughout procedure	10
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Auscultation of Breath Sounds

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to auscultate and describe breath sounds using appropriate technique and equipment.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Exposes chest appropriately	10
3. *Medical:* Places bell of stethoscope against area of right lung apex, posterior chest wall	5
4. Asks patient to take a deep breath	5
5. Notes lung sound Full or diminished Clear or crackling, wheezing	5
6. Repeats steps 3 - 5 in the following locations Left lung apex Left lung base Right lung base	20
7. Compares equality of lung sounds	5
8. Repeats steps 3 - 7 on the anterior chest wall	25
9. *Trauma:* Places bell of stethoscope against left lateral aspect of lung field, asks patient to take a deep breath, notes lung sound; repeats over right lateral aspect of lung field	15
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Oral Glucose Administration

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively administer oral glucose to a conscious patient with altered mental status.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Determines patient's past medical history a) Patient states diabetic history b) Medic alert tag c) Oral hypoglycemics d) Insulin in refrigerator, syringes	20
3. Determines that patient is awake and cooperative sufficiently to self administer oral glucose paste	20
4. Opens glucose tube, or mixes sugar into a liquid	10
5. Directs patient to take tube or glass from hand	10
6. Observes patient self administer glucose or liquid	10
7. Encourages patient to continue self administration	10
8. Assesses patient mental status over next several minutes	10
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Patient Assessment

OBJECTIVE: Upon completion of this skill, you will have demonstrated a logical, concise and complete assessment on any patient.

MANIPULATIVE STEPS:

SCENE SIZE-UP	15
1. Puts on appropriate body substance precautions	5
2. Checks for scene safety	3
3. Determines nature of illness/mechanism of injury	3
4. Determines number of patients	1
5. Determines need for additional resources	1
6. Takes c/spine precautions as necessary	2
INITIAL ASSESSMENT	30
1. Determines level of consciousness (LOC)	5
AVPU: Is the patient **A**lert, or responds to **V**erbal/**P**ainful stimulus, or is **U**nresponsive	
2. Determines chief complaint/life threats/mechanism of injury	4
3. Assesses ABCDE's and takes appropriate steps to correct life threats	
Airway: patent (speaking) or compromised	5
Breathing: non-labored, labored, shallow, absent	5
Circulation: strength, rate, location of pulse	5

Life threatening bleeding	
Skin signs	
Disability: AVPU	3
Expose: removes clothing as necessary	3
CONDUCTS APPROPRIATE FOCUSED HISTORY AND PHYSICAL EXAM	50
PERFORMS ONGOING ASSESSMENT	5
TOTAL SCORE	

FOCUSED HISTORY AND PHYSICAL EXAM - Responsive medical	50
1. Assesses History of Present Illness/Injury (HPI)	10
Onset of signs/symptoms **P**rovocation **Q**uality **R**egion/radiation **S**everity **T**ime	
2. Assesses medical condition	10

Signs/symptoms **A**llergies to medicine **M**edications currently taking **P**ast medical history **L**ast oral intake **E**vent leading to present illness/injury	
3. Performs focused physical exam Assesses affected body system	10
4. Assesses vital signs Respiratory rate and quality Pulse rate and quality Blood pressure Skin signs Pupil status (PERRL)	10
5. Initiates appropriate interventions	5
6. Determines transport mechanism	5
ONGOING ASSESSMENT	5
1. Repeats initial assessment	2
2. Repeats vital signs	2
3. Repeats focused assessment	1
TOTAL POINTS	

FOCUSED HISTORY AND PHYSICAL EXAM - Unresponsive medical	50
1. Performs rapid physical exam	15
Head **D**eformities **B**urns **C**ontusions **T**enderness **A**brasions **L**acerations **P**enetrations **S**welling	4
Neck DCAP-BTLS, stoma, medic alert, JVD Accessory muscle use	1
Chest DCAP-BTLS, chest rise, paradoxical movement, retractions, lung sounds, scars	3
Abdomen DCAP-BTLS, distention, masses, scars	2
Pelvis DCAP-BTLS, incontinence, pregnancy	2
Legs DCAP-BTLS, CSM, medic alert, track marks	1

Arms DCAP-BTLS, CSM, medic alert, track marks	1
Back DCAP-BTLS, scars	1
2. Assesses History of Present Illness/Injury (Family/bystanders)	10
Onset of signs/symptoms **P**rovocation **Q**uality **R**egion/radiation **S**everity **T**ime	
3. Assesses medical condition (Family/bystanders)	10
Signs/symptoms **A**llergies to medicine **M**edications currently taking **P**ast medical history **L**ast oral intake **E**vent leading to present illness/injury	2
4. Assesses vital signs Respiratory rate and quality Pulse rate and quality	5

Blood pressure Skin signs Pupil status	
5. Initiates appropriate interventions	5
6. Determines transport mechanism	5
ONGOING ASSESSMENT	5
1. Repeats initial assessment	2
2. Repeats vital signs	2
3. Repeats focused assessment	1
TOTAL POINTS	100

FOCUSED HISTORY AND PHYSICAL EXAM - Significant Trauma	50
1. Performs rapid physical exam	15
Head **D**eformities **B**urns **C**ontusions **T**enderness	4

Abrasions **L**acerations **P**enetrations **S**welling	
Neck DCAP-BTLS, stoma, medic alert, JVD Accessory muscle use	1
Chest DCAP-BTLS, chest rise, paradoxical movement, retractions, lung sounds, scars	3
Abdomen DCAP-BTLS, distention, masses, scars	2
Pelvis DCAP-BTLS, incontinence, pregnancy	2
Legs DCAP-BTLS, CSM, medic alert, track marks	1
Arms DCAP-BTLS, CSM, medic alert, track marks	1
Back DCAP-BTLS, scars	1
2. Assesses vital signs Respiratory rate and quality Pulse rate and quality	15

Blood pressure Skin signs Pupil status	
3. Assesses patient history	10
Signs/symptoms **A**llergies to medicine **M**edications currently taking **P**ast medical history **L**ast oral intake **E**vent leading to present illness/injury	
4. Initiates appropriate interventions	5
5. Determines transport mechanism, initiates transport	5
6. Performs detailed physical exam if possible	
7. Determines need for detailed physical exam	
Head **D**eformities **B**urns **C**ontusions **T**enderness **A**brasions **L**acerations **P**enetrations **S**welling	

Face DCAP BTLS	
Eyes PERRL, conjunctiva, conjugate gaze	
Nose Nasal flaring, drainage	
Mouth Teeth, drainage, tongue	
Neck DCAP-BTLS, stoma, medic alert, JVD Accessory muscle use	
Chest DCAP-BTLS, chest rise, paradoxical movement, retractions, lung sounds, scars	
Abdomen DCAP-BTLS, distention, masses, scars	
Pelvis DCAP-BTLS, incontinence, pregnancy	
Legs DCAP-BTLS, CSM, medic alert, track marks	
Arms DCAP-BTLS, CSM, medic alert, track marks	

Back DCAP-BTLS, scars	
ONGOING ASSESSMENT	5
1. Repeats initial assessment	2
2. Repeats vital signs	2
3. Repeats focused assessment	1
TOTAL POINTS	100

FOCUSED HISTORY AND PHYSICAL EXAM - No significant trauma	50
1. Performs focused physical exam Assesses affected body system **(DCAP-BTLS)** Reassesses mechanism of injury	15
2. Assesses vital signs Respiratory rate and quality Pulse rate and quality Blood pressure Skin signs Pupil status	10

3. Assesses patient history	10
Signs/symptoms **A**llergies to medicine **M**edications currently taking **P**ast medical history **L**ast oral intake **E**vent leading to present illness/injury	
4. Initiates appropriate interventions	5
4. Determines transport mechanism, initiates transport	5
ONGOING ASSESSMENT	5
1. Repeats initial assessment	2
2. Repeats vital signs	2
3. Repeats focused assessment	1
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Sitting Immobilization

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively immobilize a sitting patient whom you suspect may have a potential cervical spine injury.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	5
2. Directs assistant to maintain manual cervical spine immobilization	10

3. Assesses patient's CSM function **C**irculation - presence of pulses **S**ensory - patient feels physical stimulus applied to fingers and toes **M**otor - patient able to grip hands and move feet	10
4. Applies appropriately sized cervical collar a) Measures first b) Applies from the front of patient's neck	10
5. Places vest type device between patient and assistant, with "wings" of vest placed directly under patient's axillae	10
6. Applies torso straps first In order: middle - bottom - top	10
7. Applies leg straps	5
8. Immobilizes head and neck to vest Fills void between head and vest	10
9. Reassesses patient's CSM function	8
10. Moves patient to supine position on backboard Supports legs while positioning patient	5
11. Releases leg straps	5
12. Secures patient to backboard	5
13. Reassesses patient's CSM function	2
14. Directs assistant to release manual stabilization	5

TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Spinal Immobilization

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively immobilize a patient whom you suspect has a potential cervical spine injury.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	5
2. Directs assistant to maintain manual cervical spine immobilization	10
3. Assesses patient's CSM function **C**irculation - presence of pulses **S**ensory - patient feels physical stimulus applied to fingers and toes **M**otor - patient able to grip hands and move feet	10
4. Applies appropriately sized cervical collar a) Measures first b) Applies from the front of patient's neck	10
5. If necessary places patient arms besides body	5
6. Places backboard besides patient, with top of board located approximately 3 inches above top of head	5
7. Log rolls patient onto side toward rescuers	10
a) Directs second assistant to support hips and legs	
b) Directs first assistant to coordinate log roll	
c) Controls patient's torso and hips	
8. Sweeps the patient's back for injury or bleeding	5
9. Has first assistant direct log roll onto backboard	5

10. Secures body to backboard using appropriate straps a) Pads all voids b) Secures hips and shoulders	10
11. Immobilizes head and neck to backboard	10
12. Asks first assistant to release manual stabilization	5
13. Evaluates patient's CSM function	10
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Sucking chest wound

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively manage a sucking chest wound utilizing appropriate technique and equipment.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	
2. Checks patient's ventilatory status	
3. Inspects chest wound for sounds and bubbling	
4. Applies a nonporous dressing to site a) If possible, ask patient to exhale completely b) Applies dressing with palm of hand c) Tapes securely on three sides	
5. Applies high flow oxygen using nonrebreather mask	
6. Reassess patient's ventilatory status Auscultate lung sounds for equality and depth	
7. Assesses for developing signs of tension pneumothorax Releases dressing if signs develop	
8. Places patient in high fowler's position if possible or onto affected side if patient is in shock	
9. Reassess patient's ventilatory status continuously	
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Traction Splinting

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to effectively manage a mid-shaft femur fracture using appropriate technique and equipment.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	10
2. Exposes injury site on femur	10
3. Determines this injury to be located mid-shaft	10
4. Assesses patient's CSM function in extremity **C**irculation - presence of pulse, equal to unaffected side May also check nail blanching **If pulse or blanching is absent, and extremity is cold to touch, attempt to straighten extremity once to restore circulation** **S**ensory - patient feels physical stimulus applied to fingers or toes **M**otor - patient able to move fingers or toes	10
5. Directs assistant to apply manual traction May apply ankle hitch prior to applying traction	10
6. Measures traction splint against good leg, extending splint 6 to 8 inches beyond foot	10
7. Applies appropriate sized splint to affected extremity	5
8. Applies groin strap	5
9. Applies ankle strap Tighten ankle hitch until patient feels relief Direct assistant to release manual traction	10
10. Immobilizes extremity above and below injury Distribute straps above and below joints	5

11. Reassesses patient's CSM function	10
12. Position patient onto backboard	5
TOTAL POINTS	100

COMMENTS:

MANIPULATIVE SKILL: Vital Signs

OBJECTIVE: At the end of this skill, you will have demonstrated that you are able to correctly ascertain a patient's vital signs using the appropriate equipment and techniques.

MANIPULATIVE STEPS:

1. Takes or verbalizes appropriate body substance isolation precautions	5
PULSE	25
1. Selects pulse site Adult - radial, then brachial, carotid, femoral Pedi - brachial, then carotid, femoral, apical	6
2. Palpates pulse	6
3. Determines pulse rate Counts number of beats in 15 seconds and multiplies by 4	7
4. Determines quality of pulse a) Regularity - regular or irregular b) Strength - full or weak, thready	6
RESPIRATIONS	25
1. Observes or feels rise and fall of chest	8
2. Determines rate of respirations Counts number or breaths in 15 seconds and multiplies by 4	9
3. Determines quality of respirations a) Regularity - regular or irregular b) Effort - non-labored, labored	8

BLOOD PRESSURE	25
1. Applies cuff to proximal arm a) Just above elbow bend b) Snug fitting c) Center of bladder over artery d) Bare skin	4
2. Locates brachial arterial pulse	4
3. Places diaphragm of stethoscope over site	4
4. Inflates cuff until sphygmomanometer reads 170 mm Hg	4
5. Positions ear pieces	4
6. Deflates cuff slowly a) Notes when heartbeat is first heard (systolic) b) Notes when heartbeat is no longer heard (diastolic)	5
c) Accuracy to within 10 mm Hg	
PUPILLARY ASSESSMENT	20
1. Examines eyes for pupil size Equal/unequal	5
2. Examines pupils for shape Round/misshapen	5
3. Examines pupils for reactivity	5

a) Brisk, sluggish, fixed b) Equal, unequal reaction	
4. Examines pupils for light accommodation	5
5. Checks eyes for symmetry Conjugate, disconjugate, doll's eyes	5
TOTAL POINTS	100

COMMENTS:

SECTION 8: APPENDIX

EMS ACADEMY

EMT STUDENT CLINICAL REPORT FORM

Student Name: Date / Time:

Evaluator Name: Rescue #:

This form is required for each patient contact. The form must be typed or neatly printed.

Patient: Age: Sex: Wt (kg): CMED #

Chief Complaint: *Include all pertinent information about chief complaint, PQRST, signs & symptoms, etc.*

Vitals Signs: Resp: Pulse: B/P:

Pertinent Medical History:

Physical Assessment Findings:

Treatment / Response:

Suspected Diagnosis:

Explain Diagnosis:

EMS ACADEMY

EMT STUDENT VERIFICATION FORM

On student performed

Date Print Student's name

his/her field observation on Ambulance

Unit #

from _____ hrs to _____ hrs. **Starting time Ending time**

Student:

Print name Signature

Preceptor:

Print name Signature

Training officer:

Name Signature

EMS ACADEMY

EMT STUDENT FIELD PERFORMANCE EVALUATION

Student's Name: _____
Evaluator:_____Date:_____

SKILLS EVALUATION:

4 = Superior 3 = Satisfactory 2 = Marginal / Inconsistent 1 = Unsatisfactory N/O = Not observed

1. Assessment / Vitals 4 3 2 1 N/O 6. Child Birth 4 3 2 1 N/O

2. Airway Management 4 3 2 1 N/O 7. Back Boarding 4 3 2 1 N/O

3. CPR 4 3 2 1 N/O 8. MAST 4 3 2 1 N/O

4. Bleeding Control 4 3 2 1 N/O 9. ALS Interaction 4 3 2 1 N/O

5. Splinting 4 3 2 1 N/O 10. KED 4 3 2 1 N/O

OVERALL EVALUATION:

4 = Superior 3 = Satisfactory 2 = Marginal / Inconsistent 1 = Unsatisfactory N/O = Not observed

1. Student / Patient Interaction 4 3 2 1 N/O

2. Identification of Patient care priorities 4 3 2 1 N/O

3. Leadership skills / Professional demeanor 4 3 2 1 N/O

4. Relates to Ambulance personnel 4 3 2 1 N/O

5. Remains calm 4 3 2 1 N/O

6. Accept advice and constructive criticisms 4 3 2 1 N/O

7. Overall impression of students performance 4 3 2 1 N/O

COMMENTS:

Evaluation discussed with student? [ ] Yes [ ] No

Student Signature: _____
Date:_____

Paramedic Evaluator Signature:
_____Date:_____

APPENDIX XVII: Emergency Medical Health Services Program

Student Handbook

(O.D.P.S. #1-002-004)

THE ACME EMS EDUCATION PROGRAM

The College of 911

Jane Doe

Program Director

Content Outline:

I. Program Purpose

This program is designed for individuals interested in providing care to patients in the prehospital setting. It will provide the participant with opportunities to gain information, skills, and attitudes necessary for certification as an Emergency Medical Technician-Paramedic in the State of Ohio.

II. Program Description

The Department of Public Safety approves this program. It addresses information and techniques currently considered to be the responsibilities of the EMT-Paramedic, according to the most current version of United States Department of Transportation's Emergency Medical Technician-Paramedic (EMT-P), National Standard Curriculum. The program consists of didactic (lecture) instruction, practical skills training, and clinical observation and training.

III. Program Goals

The program will contain information and skill practice opportunities, which will enable a properly motivated and capable participant to:

A. Demonstrate an understanding of human anatomy and physiology and the rationale and fundamentals of prehospital care and treatment of the sick and injured.

B. Perform a primary and secondary patient survey.

C. Understand, recognize, and provide appropriate ALS care for life threatening and non life-threatening emergencies.

D. Learn and demonstrate correct application and utilization of advanced life-support equipment in the prehospital setting.

E. File a run report of occurrences for the use of the receiving hospital as well as a permanent record for local use.

F. Transmit necessary information from the emergency vehicle to on line medical control in an orderly manner using mobile communication equipment.

A. Understand and discuss the rationale of patient/rescuer safety and care at the scene and through transport to a receiving medical facility.

IV. Instructional Materials

A. Several textbooks, workbooks and review manuals are available in The Acme EMS Education Program bookstore. The required and recommended books are listed by course number in the bookstore at the beginning of each semester.

The costs for books varies each year but average cost is $200-$250 for the entire course.

B. The Laboratory Skill Manual must be purchased as a course pack from the bookstore.

C. Additional supplies and materials required (Lab coat, Shoulder Patch, stethoscope and EKG Calipers) at approximately $50.00

D. Although the textbook selected for the course will be the primary textbook for the entire curriculum, the student **will be responsible** for obtaining the following supplemental textbooks:

Advanced Cardiac Life Support, American Heart Association

Pediatric Advanced Life Support, American Heart Association

Basic Trauma Life Support, American College of Emergency Physicians

Basic Pediatric Life Support, American College of Emergency Physicians

V. Program Fees

There will be a tuition and general fee for all students. Students must obtain a student ID card to participate in activities and have access to the computer labs, libraries, and events.

Lab Fee/Liability insurance $75 per year

Additionally, in accordance with the clinical experience policy, each participant in an EMT education program must submit the original test results from all required laboratory tests and a physician's statement of fitness to perform the required clinical activities prior to the third week of the fall semester.

Upon successful completion of the EMT program verified by the Medical Director and the Program Director an **examination fee of $35** will be due to the National Registry of EMTs. The Acme EMS Education Program will arrange for and provide space for the National Registry of EMT's examination at the completion of the program. There is a **$150.00 examination site fee** payable by the participant to The Acme EMS Education Program. This is non-refundable and payable at each examination attempt.

Students who wish to purchase certificate of completion cards for ACLS, PALS, PBTLS and BTLS may do so by paying the appropriate fee at the end of each specialty course. Generally these cards cost between $8.00 and $15.00 each.

VI. Class Location

Classes and laboratory sessions are conducted in the Clinical Laboratory Building, unless otherwise noted in the class syllabus. Please refer to the schedules for room locations. Laboratory sessions are held in the Clinical Laboratory Building Room 123.

VII. Class Time

Classes meet from 6:00 p.m. to 9:00 p.m. on Monday and Wednesdays. Laboratory sessions meet on Tuesday evenings from 6:00 p.m. to 9:30 p.m. Periodically during the course of instruction, class times and meeting sites will change to accommodate specialized education and testing programs. Students will be informed of such changes at the beginning of each semester.

VIII. Clinical Experience

The clinical coordinator, in cooperation with a medical facility, medic unit, ambulance service, life squad, and/or dispatch center will provide the opportunity for the program participants to observe and train in a clinical setting.

A. Clinical instruction and experiences are offered each semester.

1. The clinical experience is designed to meet and enhance the specific learning needs of the student. Each area of clinical experience has been selected to correspond with a specific area of didactic classroom instruction and to meet the clinical skill objectives outlined in the USNSTC.

2. The number of successful skill completions is designated for each specific area of clinical experience (see Appendix 1) and must be met by each student in order to successfully complete the program.

Areas used for clinical experience include the following:

a) Coronary Care Unit

b) Emergency Department

c) Life Squad

d) Obstetrics

e) Intubation Experience

f) Burn Unit

g) Pediatric ED

f) Dispatch Center

B. Clinical Attendance

1. Clinical assignments are made for each student. The student is expected to report 15 minutes before the start of the shift. The student is expected to stay in the area for the entire designated shift. If the student is unable to meet the schedule, they must notify the Clinical Coordinator at the phone numbers supplied to the students at the beginning of each semester. The coordinator will then notify the specific clinical area that the student will not be in attendance.

2. Due to the complexity of scheduling students into limited clinical affiliates, there will be no change in the assigned clinical training. Students must be in the specific area that they are assigned. Make-up time is available **only at the end of the semester** and only on a **limited basis.**

3. If a student is ill, they must make-up the time based upon availability. Absence from clinical areas is permitted only for **true emergencies**. **A written excuse from a physician must be presented for an accepted excuse for failure to meet assigned clinical rotations**.

4. **Unexcused** (no call, no show) absences from **two** clinical assignments in any one semester will result in the students' grade being lowered by **one full letter grade**.

5. **More than two unexcused absences in any one semester** will be grounds for dismissal from the program and the

assignment of letter grade F for the clinical course.

6. The stated hours for each clinical area are based on the student successfully completing the objectives. This is a minimum requirement and at the discretion of the director of the program, the student may be asked to participate in further clinical learning experiences.

7. The students must have their hours of attendance verified by the preceptor on the Acme EMS Education Program form. The completed form must be submitted to the director to be recorded. **Falsification of these forms will be grounds for dismissal from the program**.

8. In order to document the quantity and quality of clinical experiences in each clinical field, the student will keep a clinical log to be reviewed by the clinical coordinator on a weekly basis. Failure to have the forms completed and reviewed by the director will result in the student being asked to repeat the specific clinical experience.

9. Clinical logs are due one week prior to the end of the semester. Clinical logs submitted for review after that time will be subject to **a drop of one full letter grade**.

1. **Falsification of these forms will be grounds for dismissal from the program.**

C. Dress Code for Clinical Experience

1. Students should wear a white, collared shirt, dark blue pants, black shoes, and a short white lab coat, which the student provides. Students **must** wear the Acme EMS Education Program patch on the left shoulder of the shirt and on the front pocket of the laboratory coat**. Students must clearly display their picture student ID card while in the clinical setting**. The laboratory coat will not be worn during life squad, ambulance or communication center experiences.

2. **Official Student ID Nametags should be visible at all times during in-hospital clinical experience. ID tags will not be worn during life squad and ambulance experience, however the student must present the picture ID to the preceptor when reporting for duty. Students without picture ID will be asked to leave the clinical site.**

3. No jeans, sandals, t-shirts, cowboy boots or other inappropriate attire during clinical experience. Students should have hair up and off the collar and be free of heavy jewelry, perfume, and inappropriate make-up. No body pierced jewelry is allowed to be visible during clinical experience

D. Performance on Duty

1. Each student must utilize self-initiative in the clinical area in which they are assigned.

2. The clinical coordinator/director reviews and coordinates the clinical experience, but they are not responsible for providing specific activity. Hospitals may vary somewhat in their approach to the students.

3. The student **must** tell preceptors which areas they would like more experience in. The request must conform to the guidelines of paramedic responsibilities. (See specific Clinical Objectives for each area.) Students should utilize the check-off list provided to ensure completion of objectives.

4. The student is expected to be tactful and courteous at all times. If a problem arises during clinical activities, the student is required to contact the clinical coordinator of the program to intervene.

5. Students may perform activities only under the direct guidance and observation of the registered nurse, physician, EMS Dispatcher, or certified paramedic. If the student is unfamiliar with the duty or has never performed the function outside the classroom, they must relay this information to the preceptor and observe. Subsequent availability of these specific experiences warrants a request by the student to actively participate.

6. Students must conform to **all rules and regulations of the clinical affiliate** during clinical experience. Students who display unprofessional appearance, substandard hygiene, unprofessional or inappropriate attitude, or misconduct as defined by the clinical affiliates employees handbook and the programs clinical guidelines will be subject to dismissal from the program.

In view of the limited time for clinical experience, there should be no area too menial or repetitious for the students to participate. The student should be aware of, and make use of, the vast learning opportunities available in every clinical situation and respect the clinical expertise of the preceptors working in those areas.

IX. Attendance Policies

Due to the volume of the material to be covered and the speed at which it will be presented, attendance will be expected at all classes. The maximum allowable number of absences and make-up arrangements is **two per semester**. **Unexcused** (no call, no show) absences from two classes in any one semester will result in the students' grade being lowered by **one full letter grade**. **More than two unexcused absences in any one semester will** be grounds for dismissal from the program and the assignment of letter grade F for the semester coursework. Exceptions to these regulations will be made on a case-by-case basis as determined by the program director and medical director.

Participants are expected to take responsibility for getting class notes, handouts, and make-up assignments when necessary. The Instructor is **NOT** responsible for supplying the student with these items. It is suggested that students designate another student to make sure that all classroom material is obtained.

When a student misses a scheduled quiz, the quiz will be made available to the student for study purposes; however, the student **will not be allowed to make up the quiz for a recorded score**.

X. Participant attire

Participants will be required to adhere to clinical guidelines when in an assigned clinical setting.

XI. Participant Progress Conference

The program director may request program participants to attend progress conference(s) during the course of the program.

XII. Examinations/Grading

Each student is expected to complete the reading assignment and workbook assignment prior to attending the class sessions. The lectures are based on the US DOT National Standard Curriculum. The lectures vary in sequence from the textbook. The material

presented **in lectures, textbooks, and assigned readings will be utilized in preparing the mid-term and final examinations.**

All assignments must be completed before a grade will be assigned to the student. Quizzes and workbook assignments offer guidelines for individual study and for faculty appraisal of the student's progress. **Late assignments will be not be reviewed or evaluated.**

A mid-term examination will be given each semester. A final examination, which is comprehensive in design, is given at the end of each semester. Students must obtain at least a 75% on the final examination to successfully complete the course.

Academic dishonesty is grounds for immediate dismissal from the program. Please refer to The Acme EMS Education Program Catalogue for statement on academic dishonesty. No hats, ball caps, or sunglasses should be worn during examinations. In addition, no pagers, cell phones, PDA or other forms of electronic transmission of information are allowed during examinations.

Grading Scale:

Letter Grade	**Point**	**Range**
A	4.0	95-100
B+	3.33	90-94
B	3.0	85-89
C+	2.33	81-84
C	2.0	75-80
D	1.0	70-74

F	0.0	<69

Grades will be determined by the following weighting:

Mid-term: 20%; Final: 50%; Quizzes: 20%; and, Homework 10%

Written examinations are the most appropriate and effective process for measurement and assessment of the participants' success in converting content into knowledge. Practical skills provide feedback to both the instructor and participant on the ability of the participant to perform specific tasks. Results of written and practical skills and observational reports detailing participants' attendance and participation will be considered on the final grade.

Practical skill examinations will be administered **three** times during the program and must be successfully completed in order to continue in the program. At the instructor's discretion, a second opportunity to demonstrate competency on skills (prior to the end of the program) may be arranged.

Successful completion of the course will be determined by:

- **Minimum 75%** grade on the final examination
- Overall course grade of 75%
- Successful completion of AHA/ACLS provider level and other certificate courses as required (BTLS, PALS, PTLS)
- Practical skills score of 100%
- Satisfactory performance (completion of all quantified skill exposures) and a grade of **C or higher in** clinical courses
- Attendance at 80% or better of all classes and clinical assignments

Failure to successfully complete the above will result in ineligibility to sit for the initial attempt at the State Certification examination, until the time the student has completed remediation as required by the program director, program medical director and program faculty.

XIII. State Examination Requirements

Upon program completion of all final written and practical examinations and completion of all quantified clinical experiences as addressed in the objectives and in Appendix I, the participant will be permitted to take the National Registry of EMTs examination required for State certification. A site fee of $150.00 is assessed by the Acme EMS Education Program to cover the cost of staging the examination. These fees are above and separate from any fee charged by the National Registry of EMTs.

XVI. Continuing Education

This course is only the beginning of the participant's experience in EMS. The participant should plan to devote sufficient time and effort to continuing education to maintain certification in compliance with requirements set by the State and to maintain an appropriate level of knowledge and proficiency with patient care skills. Specific requirements for annual recertification training are available from the State and the National Registry of Emergency Medical Technicians.

XV. Participant Safety

Good mental and physical health is necessary for an individual to maintain the pace and physical demands that this course entails.

The program director or part-time faculty and clinical preceptors will oversee all student performance in both the classroom and clinical setting. **Each student should address any problems or concerns** that he or she may have regarding his or her safety immediately to the individual directly involved with the training in progress. Directions given by program personnel should be followed accurately, and if not understood, should be questioned to prevent problems and misunderstandings.

All students will perform with normal regard for personal safety as well as the safety of patients and others involved with patient care. At no time will the student perform any **act that he or the preceptor deems unsafe or that the student/preceptor feels is inappropriate action for the student to take.**

Any student who has an infectious disease (common cold, flu, hepatitis, herpes, or cold sore, etc.) should not participate in activities in the lab or the clinical setting. Students will be expected

to attend class - if their condition permits - and observe others in the practical stations. The student will make-up practical time at the discretion of the program director. The student will be held responsible for the instruction and will be expected to practice on his or her own time to maintain skill levels in keeping with class progress.

In the case of any illness which requires the student to miss two or more classes, **the student will be required to have a medical release by a physician before being allowed to return to class**.

All manikins, airway adjuncts, and other equipment will be properly cleaned with disinfectant between each student's use (each student will have clean equipment). Due to the nature of the training, it is imperative that all students maintain good personal hygiene habits at all times. A sink and disinfecting soap is **available in the laboratory** and will routinely be used by students when working within the laboratory setting.

Any student with a history of chronic health problems, pregnancy, recent surgery, or back injury will be required to present a medical release from a physician. The program director and the medical director have the option to request such a release at his or her discretion.

Students should be able to lift 100-150 pounds; however, all students will exercise prudent physical exertion in labs and on calls - cot lifting, patient lifting, scene safety precautions, etc.

Any time a student suffers an injury while functioning as an EMT student, he or she will immediately report the occurrence to the preceptor who will in turn make an immediate report to the program director. A written incident report will be filed with **the program director and medical director** within 24 hours of the occurrence.

The paramedic on an EMS call or the clinical preceptor has complete authority over the student during his or her clinical rotation. If at any time the student performs actions not approved by the paramedic or preceptor, the student will be dismissed from the program.

While riding in emergency vehicles, students will be seated in the proper seat with their seat belt on.

No student is allowed to drive EMS vehicles at any time. Failure to comply with this rule will result in the automatic dismissal of the student from the program.

XVI. Statement of Understanding

I have received and read the student handbook for the program.

I understand the contents of the student handbook and agree to abide by the policies specified in it.

(Student's Name) (Date)

NOTE: This form must be signed and returned to the program director before the first scheduled examination. Failure to return the form will result in the student being ineligible to participate in the examination.

APPENDIX XVIII: BUDGET CONSIDERATIONS

Salaries and Honoraria

- Instructors
- Other course assistants
- Administrative support staff
- Evaluators
- Medical director

Fees

- Business
- Course approval
- Attorney
- Accountant
- Taxes
- Insurance (liability, property, etc.)

Facilities

- Classroom(s)
    1. Space with adequate parking
    2. Tables
    3. Chairs
- Office
    1. Desk(s)
    2. Chair(s)
    3. Computer (ISP)
    4. Telephone
    5. Answering machine
    6. File cabinet (with lock)
    7. Photocopier
    8. Facsimile machine
    9. Miscellaneous office equipment
    10. Office supplies
    11. Cleaning supplies

Materials

- Recruiting
    1. Flyers, letters, etc. to relay course information
    2. Postage
    3. Registration forms
- Training
    1. Teaching aids (blackboard, flip chart, overhead projector, computer, projector, TV, VCR, paper, pens, markers, etc.)
    2. Training equipment (mannequins, simulators, defibrillators, etc.)
    3. Disposable supplies (bandaging, tubing, etc.)
    4. Cleaning supplies

- Course
    1. Syllabus, handbook, curriculum
    2. Records
    3. Handouts
    4. Instructor resources
    5. Textbooks
- Refreshments

Travel

- Per diem
- Mileage

APPENDIX XIX: Glossary of Terms

Accreditation	To give official authorization to or approval of; to recognize (an educational institution) as maintaining standards that qualify the graduates for admission to higher or more specialized institutions or for professional practice.
Affective domain	Part of Bloom's taxonomy, the affective domain deals with feelings, thoughts and values.
Analytic learner	Learning preference dealing with how a learner prefers to take in information. An analytic learner prefers to look at details, steps

	and minute elements. The opposite of an analytic learner is a global learner.
Attribution	Regarding education, attribution is a thought process where an individual assigns responsibility for something. Example; a student performs poorly on a practical examination. When reviewing the reasons for poor performance, what does this student attribute to the cause? (lack of preparation time, poor teaching by the instructor, misunderstanding of the procedure, unprepared for testing on that day, etc.) Attribution is important in remediation because it shows how much responsibility a student accepts for their failures.
Auditory preference	A learner preference describing how a learner prefers to receive information. An auditory learner prefers the sense of hearing over other senses.
Certification	The issuing of a certificate by a private agency based upon standards adopted by that agency that are based upon competency.
Clinical instructor	A member of the EMS education team whose focus in teaching is the clinical setting. This individual must possess a high level of proficiency in the performance of skills in addition to their development as an EMS educator. The clinical instructor often works very closely with students in a real patient care environment.
Clinical setting	Generally an actual patient care environment where student will interact with real or simulated patients to practice skills or to demonstrate skills proficiency.
CoAEMSP	Committee on Accreditation of Educational Programs for the Emergency Medical Service Profession provides accreditation

	services for paramedic programs. Its primary goal is to foster partnerships with educational programs in continuous quality improvements.
Cognitive domain	Part of Bloom's taxonomy, the cognitive domain deals with thinking and knowledge.
Cohort Group	Several students who are attending a course together.
Continuing education	The continual process of life-long learning that involves learning new content materials. It is different from refresher education which is a review of previously learned content.
Curriculum	A particular course of study, offered in a special field. For EMS education it is has traditionally included detailed lesson plans.
Depth and breadth	Depth refers to how far into a level of learning one should go in teaching it and breadth refers to the amount of material to cover (width). The greater the depth and breadth the more fully the material is covered.
Didactic instruction	Designed or intended to teach. Didactic instruction generally deals with cognitive material needed for learning to take place in the cognitive, affective and psychomotor domain. Didactic instruction can be presented through a variety of methods, including lecture, small group work, problem-based learning, etc.
Discipline	Orderly or prescribed conduct or pattern of behavior.

Domains of learning	A method of categorizing learning into like groupings. Bloom used three domains: cognitive, affective and psychomotor. Other educational researchers have used more.
DOT-NSC Curriculum	Department of Transportation National Standard.
Educational Objective	The outcome/goal of the teaching/training conducted; the desired knowledge to be imparted.
Entry level	Refers to the novice or new EMS educator who has completed a formalized course of study of the body of knowledge proscribed by the EMS instructor curricula. This individual may possess teaching experience or credentials from another allied health field or education setting, but has limited experience teaching EMS content.
Emergency Medical Services	Collective name for all levels of certification or licensure for individuals who provide out-of-hospital patient care.
EMS Agenda for the Future	Public document finalized in 1996 that focuses on aspects of EMS related to emergency care outside traditional health care facilities. Serves as guidance for EMS providers, health care organizations/institutions, governmental agencies and policy makers committed to improving the health of their communities and to ensure that EMS efficiently contributes to that goal.
Emergency Medical Technician	A member of the EMS team who provides out-of-hospital emergency care; includes certification of EMT-Basic, EMT-Intermediate, and EMT-Paramedic which identify progressively advancing levels of care.
Formative evaluation	Process of evaluation that is conducted while training is in progress. It may be formal or informal but is generally designed

	to provide the instructor and student with a snapshot of where they are currently compared to where they want to be.
Goals	The end toward which effort is directed, goals in education are the primary reason a course or program is being taught.
Global learner	Learning preference dealing with how a learner prefers to take in information. A global learner prefers to look at the big picture first and then break it up into chunks to study. The opposite of a global learner is an analytic learner.
Kinesthetic preference	A learner preference describing how a learner prefers to receive information. A kinesthetic learner prefers the sense of touch over the other senses to learn.
Laboratory instructor	Member of the EMS education team whose primary responsibility is to assist students in learning psychomotor skills. This individual must possess a high level of proficiency in the performance of skills in addition to their development as an EMS educator. The laboratory instructor often works very closely with students in simulated patient care environment, but they may work with actual patients.
Laboratory setting	Generally a simulated patient care environment designed to allow students to practice skills and techniques on simulated patients.
Learning preference	Another term for learning style. A learning preference is the preferred mode or method a learner has for learning.
Learning style	A preferred mode or method a learner has that is unique to the way the perceive, store and retrieve knowledge and information.

Lesson plan	An instructional tool that allows the educator to map out their plan for learning for a given time frame.
Mastery level	EMS instructor who has demonstrated proficiency in all areas of the art and science of education. This individual often serves as a mentor to other instructors while continuing to grow and develop their own skills.
Memory degradation	Loss of memory that occurs over time.
Metacognition	The process of thinking about thinking. Taking deliberate steps to look at the processes one goes through to problem solve.
Motivation (intrinsic and extrinsic)	Intrinsic motivation comes from within an individual and is the force driving someone to learn. Extrinsic motivation is the driving force that is provided from outside of the individual that serves to build within them a desire to learn.
Objective	Expressing or dealing with facts or conditions as perceived without distortion by personal feelings, prejudices, or interpretations.
Pedagogy	The art, science, or profession of teaching.
Performance agreement	The process where goals, objective and content from a lesson plan are compared to determine if they are working towards achieving the same ends.
Portfolio	A method of compiling educational products (lesson plans, tests, slide presentations, games, etc.) generated by an instructor that allows the instructor to present a representative body of work for review and comment.

Primary instructor	This member of the educational team is the individual who is the main educator in charge of a cohort group of students who are attending a course. In addition to providing and coordinating classroom instruction, the primary instructor also coordinates other aspects of the course or works closely with a program director in the coordination of a course.
Professional educator	An individual who is committed to lifelong learning and who strives to increase their depth and breadth of knowledge and skills of education.
Program director	This member of the educational team is the individual who has administrative oversight over one or several EMS courses.
Psychomotor domain	Part of Bloom's taxonomy, the psychomotor domain deals with skills, manipulations of objects, and muscular control.
Rubric	An explanatory or introductory commentary, rubrics are also learning tools that provide descriptions and help clarify subjective information. For example, an objective may state that a student must demonstrate proficiency in starting an IV. A rubric will break down the grading scheme so students can see exactly what criteria are required to demonstrate proficiency.
Skills instructor	Similar to a laboratory instructor, the skills instructor is a member of the EMS education team whose primary responsibility is to assist students in learning psychomotor skills. This individual must possess a high level of proficiency in the performance of skills in addition to their development as an EMS educator. The skills instructor often work with students in simulated patient care environment or with actual patients.

Student handbook	Instructional tool that describes the rules and regulations pertinent to the specific program or course the student is enrolled in.
Summative evaluation	Process of evaluation that is conducted at the completion of training. It is generally formal, but may be informal, and is designed to test if students achieved the goals and objectives identified for the course.
Taxonomy	The study of the general principles of scientific classification.
Visual preference	A learner preference describing how a learner prefers to receive information. A visual learner prefers the sense of sight over other senses.