

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,

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

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

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

A major initiative to strengthen the EMS education profession was the establishment in 1995 of the National Association of EMS Educators (NAEMSE). The mission of NAEMSE is, "to promote EMS education, develop and deliver educational resources, and advocate research and life long learning for the professional EMS educator". NAEMSE is dedicated to assisting in the development, preparation, and induction into the EMS education profession of those persons interested in teaching in the EMS setting. The National Association of EMS Educators believes that the complex art of teaching requires the development of performance-based standards and assessment strategies that are capable of capturing EMS educators' reasoned judgments and that evaluate what they can actually do in authentic teaching situations.

The National Association of EMS Educators (NAEMSE) entered into a cooperative agreement with NHTSA and HRSA in January 2001, to revise the *EMS Instructor*

Training Program (1995). A task force was convened to consider what changes were needed in the document to create standards for entry into the EMS educator profession. These are standards that embody the kinds of knowledge, skills, and performances that entry-level EMS educators need to practice responsibly when they enter the field of EMS teaching. The standards are also designed to be built upon and prepare entry-level EMS educators for eventual success as master level EMS educators later in their careers.

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

The Starting Point: A Common Core of Teaching Knowledge

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

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

The initial development of this shared body of knowledge was viewed by the task force as important for two reasons. First, it is the common commitment to ethical practice and foundational knowledge that provides the philosophy that holds members of the profession together. A common language and shared body of knowledge enables educators to better communicate with each other. Second, the development of the common body of knowledge becomes the essential foundation for designing assessment methods for the evaluation of instructional skills.

The educational community recognizes that application of this common body of EMS education knowledge will occur in specific contexts. The adult learner, level of instruction, and instructional setting will define these contexts. We emphasize the

dynamic nature of this set of professional understandings, abilities, and commitment standards.

The Curriculum: Outcome-Based and Assessment Compatible

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

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

EMS educators are committed to the needs of the adult learner and their learning preferences.

EMS educators know the subjects they teach and how to teach those subjects using different methods to a diversity of adult learners.

EMS educators are responsible for managing the learning environment and assessing learning outcomes.

EMS educators think systematically about their practice and learn from their classroom experience.

EMS educators are members of the larger EMS and educational communities and are committed to continual improvement in the EMS education system

EMS educators are aware of the content and implications of the *EMS Education Agenda for the Future*.

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

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

Entry Level EMS Educators vs. Master EMS Educators

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

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

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

Advanced level EMS educators, having greater flexibility and adaptability, are expected to develop their abilities to deal simultaneously with more complex facets of the teaching environment. They should have greater capacity to integrate understanding and performance based upon the adult learners’ individual needs. To that end, to eventually become an expert practitioner the entry-level instructor must have, at the very least, an awareness of the kinds of knowledge and understandings needed -- as well as resources available -- to develop their skills. In addition, entry-level instructors must have the

capacity to address the facets of the curriculum, classroom presentation, and adult learning styles. The curriculum not only aims to develop entry-level instructors, but it also is designed to improve the performance of expert educators.

Peer Review

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

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

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

The Pilot Program

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

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

Recommendations for Prerequisites

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

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

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

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

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

Course Description

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

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

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

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

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

NATIONAL GUIDELINES FOR EDUCATING EMS INSTRUCTORS
AUGUST 2002

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

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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.

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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.

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