# New York State Department of Health
# Bureau of Emergency Medical Services

# Certified First Responder Standard Curriculum

*Course Guide*

**NEW YORK STATE**

**EMERGENCY MEDICAL SERVICES**

**EDUCATIONAL SERVICES**

**August 2002**

# Preface

The New York State Department of Health Bureau of Emergency Medical Services has revised the Certified First Responder curriculum to coincide with the National Highway Traffic Safety Administration's revisions to the Certified First Responder Program.  The New York State SEMAC and SEMSCO have both approved the adoption of this new curriculum.

The Certified First Responder is an integral part of the Emergency Medical Services System.  The term "Certified First Responder" has been applied to the first individual who arrives at the scene regardless of the individual type of credential i.e. Police, Fire, or EMS.  It is the goal of the New York State Certified First Responder curriculum to provide students with the core knowledge, skills, and attitude to function in the capacity of a Certified First Responder.  The Certified First Responder uses a limited amount of equipment to perform initial assessment and intervention and is trained to assist and work side by side with other EMS providers.  This level of provider is not intended to be utilized as the minimum staffing for an ambulance.  In-service programs as well as continuing education will help fulfill other specific needs for the Certified First Responder's training in-house as well as at other course locations.

# New York State Department of Health
# Bureau of Emergency Medical Services

# Certified First Responder Course Guide

## Introduction

The role of the Certified First Responder (CFR) is to be the first tier of the EMS system and to provide initial assessment and resuscitative care with limited equipment until Basic Life Support or Advanced Life Support arrives.  While most first responders have this role in common, any additional knowledge and skill they may need depends on their environment and role in the local EMS system.  In New York State effective January 1st, 2001, an ambulance service must have an Emergency Medical Technician (EMT) or higher, attending to the patient at the scene and in the ambulance while transporting the patient to the hospital.  The CFR course is only intended for individuals who provide short term resuscitative care, prior to the arrival of an ambulance, and do not have the need to "package" patients for transportation.  It is recognized, however, that CFR training is a useful introductory program for new ambulance personnel. This curriculum is not designed, and must not be used, as a "bridging" to the EMT level.

## Requirement

The State EMS Code (10NYCRR-800) requires that all EMS training courses that result in state certification must meet minimum standards regarding curricula for the specific certification level.  The State EMS Council and the Department of Health has approved the use of this curriculum, as the State's model curriculum.

## Course Sponsorship

Course sponsors must meet the requirements of section 800.20 of the State EMS Code and receive approval from the Department of Health.

## Course Design

### Didactic Instruction

The didactic instruction primarily represents the delivery of cognitive material.  Although this material is often delivered by the lecture method, instructors are strongly encouraged to utilize alternate delivery methods (video, discussion, demonstration, simulation, etc.) as an adjunct to traditional classroom instruction.  The continued development and increased sophistication of computer-aided instruction offers many options for the creative instructor.  It is not the responsibility of the faculty to cover all of the material in a purely didactic format.  It is the responsibility of the course instructor/coordinator; however, to assure that all students successfully learn the material identified by the declarative section of the curriculum.

Psychomotor Skills Laboratory

The psychomotor skills laboratory is the section of the curriculum that provides the student with opportunities to develop the practical skills of a CFR.  The skills laboratory should be integrated into the course in such a way as to present the skills in a sequential, building-block fashion.  Skills are typically taught in isolation. Later in the course, when an acceptable level of rote skill development has been achieved skill sets may be integrated through simulated patient care scenarios.  Toward the latter part of the course, the skills lab should be used to present instructional scenarios to emphasize the application and integration of didactic learning and psychomotor skills development into patient management.

**Course Length**

The emphasis of CFR training should be the competence of the graduate, not the amount of time spent educating them.  The time involved in educating a CFR to an acceptable level of competence depends on many individual variables.  The length of the CFR Original course will vary according to a number of factors, including, but not limited to:

- Student's basic academic skills competence;
- Faculty-to-student ratio;
- Student's motivation levels;
- The student's prior emergency/health care experience;
- Prior academic achievements of the students;
- Academic resource availability; and
- Quality of the overall educational program.

Individual student needs may require additional time to be added during the course so the student can successfully achieve course completion.  The Course Sponsor should develop learning contracts with these students who require additional time or laboratory sessions to successfully complete the course.  However, the course must meet the minimum hours to complete each lesson and module, but the total course hours must not exceed 51, which is bound by NYS regulation.  A sample CFR original course schedule has been provided with this curriculum.

**Student Assessment**

Any educational program must include several methods for assessing student achievement. Assessment of the cognitive and psychomotor domains should be provided on a regular basis.  They should occur frequently enough to provide the students and the faculty with valid and timely indicators of the students' progress toward and the achievement of the competencies and objectives stated in the curriculum. Ultimately, the course sponsor is responsible for the design, development, administration and grading of all written and practical assessments.  This task, however, is often delegated to persons not actively involved in the education of EMS students.  Some EMS educational programs use an outside agency that develops or

professionally publishes assessment and evaluation instruments. This does not relieve the course sponsor from the responsibility to assure the appropriateness of these assessment materials. All written examinations used within the course must be valid and reliable. They must also conform to currently accepted psychometric standards. EMS educational programs without the internal expertise to develop and/or validate their own assessment instruments are encouraged to use outside sources to validate examinations and/or as a source of classroom examination items.

The primary purpose of the CFR course is to meet the entry-level job expectations as indicated in the Job Description. Each student, therefore, must demonstrate that he/she has attained the knowledge, attitude, and skills that are described in the objectives in each division of the course curriculum. There must be a shared responsibility among the course sponsor's administrator, the course instructor/coordinator, the course medical director, and the faculty to assure that students develop proficiency in all course content areas. Every reasonable attempt should be made to help each student achieve his/her educational goals. If however, after counseling and remediation, a student is unable to demonstrate the ability to learn specific knowledge, attitudes and skills, the instructor/coordinator should not hesitate to dismiss the student. The level of knowledge, attitudes and skills attained by a student in the course will be reflected in his/her performance on the job as a CFR. This is ultimately a reflection on the course sponsor, the instructor/coordinator, the medical director and the faculty. The course administrators must assure that each student's performance is assessed on a continual basis. It is not the responsibility of the New York State Certifying Examination to assure competency and successful completion of the course. Instructor/coordinators should only recommend to the course medical director qualified candidates for certification.

Requirements for successful completion of the course are as follows:

> Cognitive - Students must demonstrate competency of all content areas of the curriculum. This is most often accomplished using quizzes, regular topical exams, and some combination of comprehensive written exams (module exams, mid terms and finals). Cognitive evaluations must be valid and reliable. Programs should use psychometric principles when developing items for written examinations. For example, item analysis should be utilized to assure discrimination of discreet information on achievement tests. Scores on tests known to be valid and reliable should be correlated to instructor-made examinations. The medical director should provide content validity of all examinations by taking each exam and/or quiz. Examinations should be balanced to the various areas within the course and should be reflected on an exam blueprint. Pass/fail scores should be established with an understanding of standard setting. Decisions regarding the continuation of deficient students must be made following a pattern of unacceptable performance. One examination failure (with the exception of the final course exam) should not result in a student's dismissal from the course. Grading practices should be standardized to prevent bias by the instructional staff. Essay and open-ended questions should be clearly written and acceptable answers should be written on an answer key before the examination is administered.

Exams must be kept secure and reviewed by students only during class time. Course administrators should investigate methods to administer and score exams electronically. Scoring of exams should be in accordance with accepted practices.

<u>Affective</u> - Students must demonstrate professionalism, conscientiousness and interest in learning the material contained in the course curriculum. The affective evaluation instruments contained within this curriculum were developed using an accepted process; their use is strongly recommended. Just as with cognitive material, a course sponsor cannot hold a student responsible for professional behaviors unless the objectives were provided and the material was presented in manner that used the instructional staff as positive role models. Students who fail to develop the professional attitudes expected of a CFR should be counseled while the course is in progress in order to provide them with an opportunity to remediate this deficiency.

<u>Psychomotor</u> - Students must demonstrate proficiency in all psychomotor skills. A complete list of skill competencies that students are expected to complete within the CFR course should be available to each student at the beginning of the course. Students should know the pass/fail score of any assessment instrument utilized within the course. Whenever possible, multiple skills evaluators should evaluate and document the same performance of a student. Patient care scenarios should be medically accurate and progress as they would during a typical EMS call. The course sponsor must monitor the reliability of the assessment instruments used by various instructional staff.

Course summative skills examinations should be administered when all instruction has been completed. When required, special psychomotor skills remedial sessions may be utilized to assist in assuring that all students have successfully acquired the skills contained in a unit or module of instruction. Pass/fail scores should be in accordance with accepted and published practices.

Students should be evaluated in all domains during didactic presentations and practical skills laboratories. Finally, for the affective domain, the students' professional behavior attributes can be assessed. This example of multi-domain assessment also applies to practical skills laboratories. In the skills lab, the cognitive domain can be measured by asking questions about the skill, and the affective domain can be measured by the students' attitude in learning and practicing the skills being performed. Care should be taken not to interrupt the skill performance with excessive questioning.

# Course Components

## Module 1 Preparatory

### Lesson 1-1
### Introduction to EMS Systems
Familiarizes the Certified First Responder candidate with the introductory aspects of emergency medical care. Topics include the Emergency Medical Services system, roles and responsibilities of the CFR, quality improvement, and medical oversight.

### Lesson 1-2
### Well-Being of the First Responder
Covers the emotional aspects of emergency medical care, stress management, introduction to Critical Incident Stress Debriefing (CISD), scene safety, body substance isolation (BSI), personal protection equipment (PPE), and safety precautions that can be taken prior to performing the role of a CFR.

### Lesson 1-3
### Legal and Ethical Issues
Explores the scope of practice, ethical responsibilities, advance directives, consent, refusals, abandonment, negligence, duty to act, confidentiality, medical identification symbols, and crime scenes.

### Lesson 1-4
### The Human Body
Enhances the CFR's knowledge of the human body. A brief overview of body systems, anatomy, and physiology will be given in this session.

### Lesson 1-5
### Lifting and Moving Patients
Provides students with knowledge of body mechanics, lifting and carrying techniques, and principles of moving patients.

### Lesson 1-6
### Evaluation: Preparatory
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

## Module 2 Airway

### Lesson 2-1
### Airway
Addresses airway anatomy and physiology, how to maintain an open airway, pulmonary resuscitation, variations for infants and children, as well as patients with laryngectomies. The use of airways, suction equipment, oxygen and barrier devices will be discussed in this lesson. Also included is the management of foreign body airway obstructions.

**Lesson 2-2**
**Practical Lab: Airway**
Provides supervised practice for students to develop the psychomotor skills of airway care. The use of airways, suction equipment, oxygen and barrier devices will be included in this lesson. Students will have an opportunity to practice the techniques of removing a foreign body airway obstruction.

**Lesson 2-3**
**Evaluation: Airway**
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

**Module 3 Patient Assessment**

**Lesson 3-1**
**Patient Assessment**
Enhances the CFR's ability to evaluate a scene for potential hazards, to determine the number of patients, whether additional help is necessary, and to evaluate the mechanism of injury or nature of illness. This lesson provides the knowledge and skills to properly perform the initial assessment. In this session, the student will learn about forming a general impression, determining responsiveness, assessing the airway, breathing, and circulation and assessing respirations and pulse. Students will discuss how to determine priorities of patient care. This lesson also teaches the knowledge and skills required to continue the assessment and management of the ill or injured patient.

**Lesson 3-2**
**Practical Lab: Patient Assessment**
Integrates the knowledge and skills learned thus far to assure that the student has the knowledge and skills of assessment necessary to continue with the management of patients with medical complaints and traumatic injuries.

**Lesson 3-3**
**Evaluation: Patient Assessment**
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

**Module 4 Circulation**

**Lesson 4-1**
**Circulation**
This lesson provides the CFR with the knowledge and skills of chest compressions and ventilations for adults, children, and infants and the use of an Automated External Defibrillator.

**Lesson 4-2**
**Practical Lab: Circulation**
Draws on the knowledge and skills learned thus far in this practical lab. Students will be given the opportunity to practice CPR skills.

**Lesson 4-3**
**Evaluation: Circulation**
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

**Module 5 Illness and Injury**

**Lesson 5-1**
**Medical Emergencies**
Discusses the recognition and management of general medical complaints, seizures, altered mental status, diabetic emergencies, stroke, environmental emergencies, behavioral emergencies, psychological crisis, and typical patient situations.

**Lesson 5-2**
**Bleeding and Soft Tissue Injuries**
Reviews the cardiovascular system, describes the care of the patient with internal and external bleeding, and teaches the management of soft tissue injuries and burns. Techniques of dressing and bandaging wounds will also be taught in this lesson.

**Lesson 5-3**
**Injuries to Muscles and Bones**
Reviews the anatomy of and injuries to the musculoskeletal system. Presents information about injuries of the skeletal system. Reviews the anatomy of the nervous system and the skeletal system. Discusses injuries to the spine and head, including the mechanism of injury, signs and symptoms of injury, and assessment.

**Lesson 5-4**
**Practical Lab: Illness and Injury**
Provides practice in assessing and managing patients with traumatic injuries.

**Lesson 5-5**
**Evaluation: Illness and Injury**
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

**Module 6 Children and Childbirth**

**Lesson 6-1**
**Childbirth**
Reviews the anatomical and physiological changes that occur during pregnancy. Demonstrates deliveries and newborn care.

**Lesson 6-2**
**Infants and Children**
Presents information concerning anatomical differences in infants and children, discusses common medical and trauma situations.

**Lesson 6-3**
**Practical Lab: Children and Childbirth**
Provides the CFR student with the opportunity to interact with infants and children and to practice the knowledge and skills learned thus far concerning this special population.

**Lesson 6-4**
**Evaluation: Childbirth and Children**
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

**Module 7 EMS Operations**

**Lesson 7-1**
**EMS Operations**
Presents an overview of the knowledge needed to function as a CFR in the out-of-hospital environment.  In addition this lesson provides the First Responder student with an overview of extrication and rescue operations and information on hazardous materials, mass casualty situations, and basic triage.
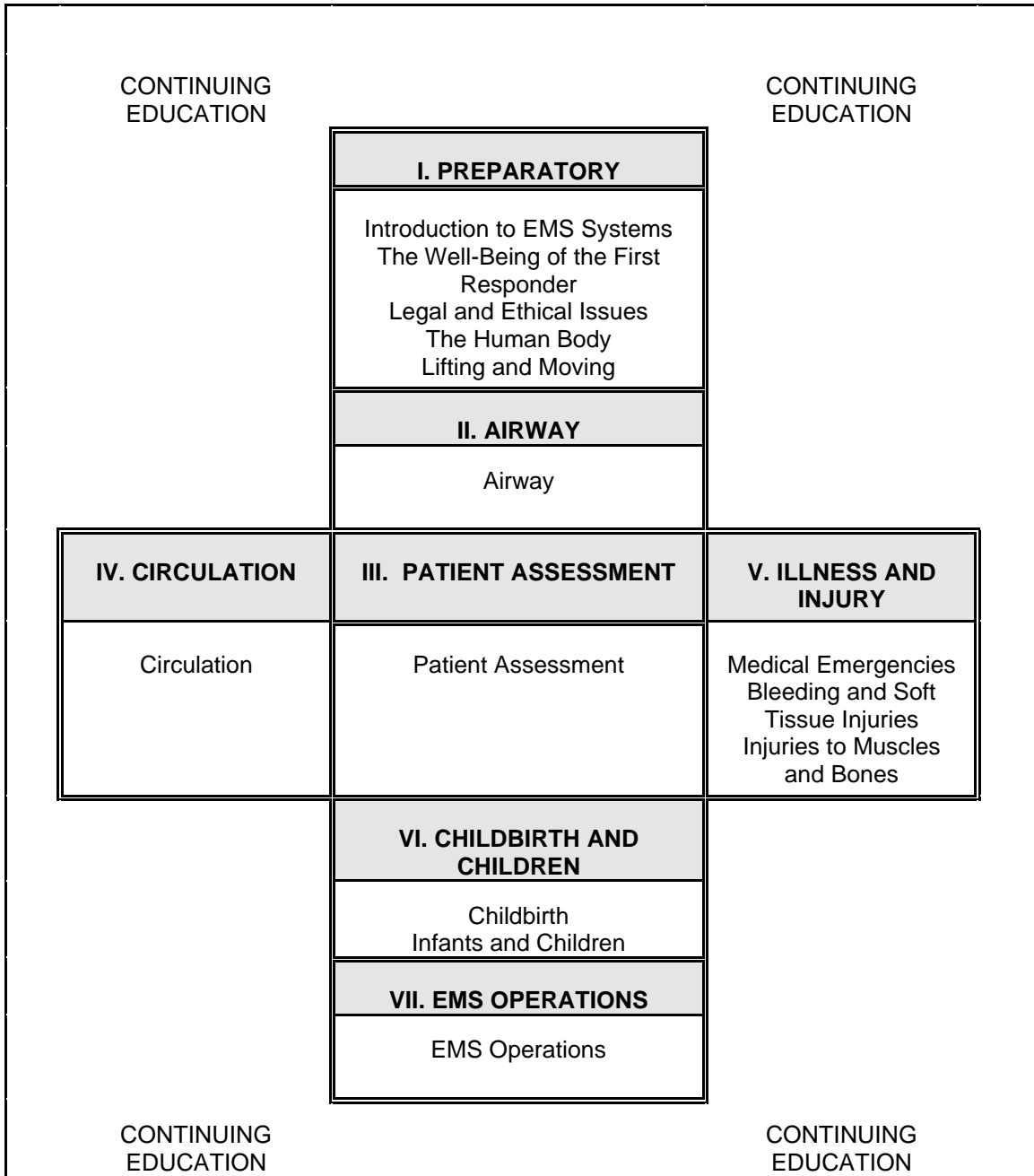
**Lesson 7-2**
**Evaluation: EMS Operations**
Evaluates the student's level of achievement of the cognitive, psychomotor, and affective objectives for this module of instruction.

# CERTIFIED FIRST RESPONDER CURRICULUM

# DIAGRAM OF EDUCATIONAL MODEL

CONTINUING EDUCATION

CONTINUING EDUCATION

**I. PREPARATORY**

Introduction to EMS Systems
The Well-Being of the First Responder
Legal and Ethical Issues
The Human Body
Lifting and Moving

**II. AIRWAY**

Airway

| IV. CIRCULATION | III.  PATIENT ASSESSMENT | V. ILLNESS AND INJURY |
|---|---|---|
| Circulation | Patient Assessment | Medical Emergencies Bleeding and Soft Tissue Injuries Injuries to Muscles and Bones |

**VI. CHILDBIRTH AND CHILDREN**

Childbirth
Infants and Children

**VII. EMS OPERATIONS**

EMS Operations

CONTINUING EDUCATION

CONTINUING EDUCATION

# New York State Department of Health
# Bureau of Emergency Medical Services

# Certified First Responder - Original
## Course Content Summary

| Module | Topic | Hours |
|--------|-------|-------|
| | **Registration/Course Introduction** | **1 Hr** |
| **1** | **Preparatory** | **6.5 Hrs** |

Lesson 1-1 Introduction to EMS System (1 Hr)
Lesson 1-2 Well-Being of the CFR (1 Hr)
Lesson 1-3 Legal and Ethical Issues (1.5 Hr)
Lesson 1-4 The Human Body (1 Hr)
Lesson 1-5 Lifting and Moving Patients (1 Hr)
Lesson 1-6 Evaluation (1 Hr)

| | | |
|--------|-------|-------|
| **2** | **Airway** | **7 Hrs** |

Lesson 2-1 Airway (3 Hr)
Lesson 2-2 Practical Lab (3 Hr)
Lesson 2-3 Evaluation (1 Hr)

| | | |
|--------|-------|-------|
| **3** | **Patient Assessment** | **6 Hrs** |

Lesson 3-1 Patient Assessment (3 Hr)
Lesson 3-2 Practical Lab (2 Hr)
Lesson 3-3 Evaluation (1 Hr)

| | | |
|--------|-------|-------|
| **4** | **Circulation** | **11 Hrs** |

Lesson 4-1 Circulation (4 Hr)
Lesson 4-2 Practical Lab (4 Hr)
Lesson 4-3 Evaluation (3 Hr)

| | | |
|--------|-------|-------|
| **5** | **Illness and Injury** | **8.5 Hrs** |

Lesson 5-1 Medical Emergencies (1 Hr)
Lesson 5-2 Bleeding and Soft Tissue Injuries (1.5 Hrs)
Lesson 5-3 Injuries to Muscles and Bones (1.5 Hrs)
Lesson 5-4 Practical Lab (3.5 Hrs)
Lesson 5-5 Evaluation (1 Hr)

| 6 | **Childbirth and Children** | **5.5 Hrs** |

Lesson 6-1 Childbirth (1.5 Hrs)
Lesson 6-2 Infants and Children (2 Hr)
Lesson 6-3 Practical Lab (1 Hr)
Lesson 6-4 Evaluation (1 Hr)

| 7 | **Operations** | **3 Hrs** |

Lesson 7-1 EMS Operations (2 Hrs)
Lesson 7-2 Evaluation (1 Hr)

**Total Course Hours**                                           **48.5 Hrs**

**NYS Practical and Written Examinations**     **4 Hrs**

## How to Use the Curriculum and Lesson Plans

There are seven modules of instruction in the core content.  There are 26 lessons within the seven modules.  Each lesson has the following components:

### Objectives

The objectives are divided into three categories:  Cognitive, Affective, and Psychomotor.

| <u>Cognitive</u> | <u>Affective</u> | <u>Psychomotor</u> |
|---|---|---|
| **thinking--** | **emotional response--** | **physical process--** |
| knowledge | feelings | physical movement |
| comprehension | emotional intensity | skilled activities |
| application | | |

To assist with the design and development of a specific lesson, each objective has a numerical value, e.g., 3-1.1.  The first number is the module of instruction, followed by a hyphen and the number of the specific lesson.  For example, 3-1.1 is:

| Module 3: | Patient Assessment |
| Lesson 3-1: | Patient Assessment |
| Objective 3-1.1 | Discuss the components of scene size-up.  (C-1) |

At the end of each objective is a letter for the type of objective:  C = Cognitive; A = Affective; and P = Psychomotor.  (The example above is cognitive).  The number following the type of objective represents the level of objective:  1 = Knowledge; 2 = Application; and 3 = Problem Solving.  (The example above is knowledge).

New York State Certified First Responder Curriculum
Adapted from the United State Department of Transportation
First Responder:  National Standard Curriculum                      Introduction Page 11

**Preparation**

Motivation -- Each lesson has a motivational statement that should be read by the instructor prior to teaching the lesson.  It is not the intent for the instructor to necessarily read the motivational statement to the students, but more importantly to be familiar with its content and to be able to prepare the students or explain why this lesson is important.

**Prerequisites**

Prior to starting a lesson, the instructor should assure that the students have completed the necessary prerequisites.

**Materials**

Audio Visual (AV) Equipment -- In recent years, high quality video materials have become available for the EMS community.  They should be used as an integral part of the instruction in this program.  The course coordinator should ensure in advance that the necessary types of AV equipment are available for the class.  If possible, the course administrator should have a video library available for the student.

**Emergency Medical Services (EMS) Equipment**

Each lesson plan contains a list of equipment that should be available for instruction.

**Personnel**

> Primary Instructor
> Assistant Instructor

Program personnel are a primary instructor and an assistant instructor.  Their roles of the program personnel are discussed in more detail under <u>Program Personnel</u>.

**Recommended Minimum Time to Complete**
Each lesson plan has a recommended minimum time for completion.  Although the time for each lesson has been pilot tested, because of the varying nature of adult learners the enrichment and the need for remediation may require additional time.  Time limits may be extended to bring the students to the full level of competency.

**Presentation**

<u>**Declarative (What)**</u> -- This is the cognitive lesson plan, the information that the instructor provides the students.  This may be accomplished by various methods, including lectures, small group discussion, and the use of audio-visual materials.  Demonstrations, if the instructor desires, may be used as part of the instruction.  The instructor must be well versed in the entire content of the lesson plan.  It is not appropriate to read the lesson plans word for word to the students.  Lesson plans

should be considered dynamic documents that provide guidelines for the appropriate flow of information.  The instructor's lesson plans should be based upon local practice, national standards, and scientific evidence approved by the Course Medical Director.  The instructor should feel free to write notes in the margins and make the lesson plan his own.

## Application

### Procedural (How)
This is the skills portion of the program.  The students should be able to demonstrate competency in all skills listed in each section.  If the declarative (what) content was presented as a lecture, the instructor should perform demonstrations prior to having the students perform the skills.  If the instructor performed a demonstration as part of the declarative component, the students may begin by practicing skills in the practical setting.

When this component of the lesson is being conducted, there should be a minimum of one instructor for every six students.  Students should be praised for their progress.  For those students having difficulty performing a skill or skills, remediation is required.  It is well known that a demonstration must be followed by practice, which must be drilled to a level that assures mastery of the skill.  It has been proven that demonstration followed as soon as possible by organized, supervised practice enhances mastery and successful applications.

### Contextual (When, Where, and Why)
This section is designed to help the students understand the application of their knowledge and skills relating to their performance as CFRs.  This section relates back to the motivational statement and represents the reasoning as to why, where, and when a CFR would need to use the knowledge or perform the skills.  It is of utmost importance that the instructor be familiar with the intent of this section and relay that intent to the students.

# EDUCATING PROFESSIONALS

It has long been recognized that CFRs, as integral members of the health care team, are health care professionals. As such, the education of CFRs should follow a professional, rather than purely technical, model of instruction. Employers and patients are significantly increasing their expectations of CFRs. To meet these expectations in the future, the formal EMS educational system will have to respond through a more dynamic curriculum revision process.

In <u>Responsive Professional Education</u>, Stark, Lowther, and Hagerty (1986) propose that professional education is a combination of developing both professional competence and professional attitudes.

Historically, most EMS education has focused primarily on technical competence of the individual provider. Technical competence, however, is only one component of professional competence. Professional competence includes six subcategories:

> *Conceptual competence* - Understanding the theoretical
> foundations of the profession
> *Technical competence* - Ability to perform tasks required of the
> profession
> *Interpersonal competence* - Ability to use written and oral
> communications effectively
> *Contextual competence* - Understanding the societal context
> (environment) in which the profession is
> practiced
> *Integrative competence* - Ability to meld theory and technical skills
> in actual practice
> *Adaptive competence* - Ability to anticipate and accommodate
> changes (e.g. technological changes)
> important to the profession.

The main areas of focus of this Curriculum are on conceptual and technical competence. This revision of the CFR curriculum is the first to address the strategies of interpersonal and therapeutic communication. Unfortunately, conceptual, technical, and interpersonal competencies are only part of the competencies required for "reflective" practice.

It is incumbent on the CFR course administrators to keep contextual, integrative and adaptive competence in mind throughout the entire course not just at its end. These are not discreet topic areas and they do not easily lend themselves to written behavioral objectives. Course sponsor administrators and faculty members must constantly integrate these issues into the conceptual and technical components of the course.

"Contextual competence" is an appreciation for how the professional's practice at a particular level fits into the larger picture. Professional practice is not conducted in a

vacuum.  It impacts, and is impacted upon, by many external forces.  To this end, entry-level CFRs must be taught to understand how their practice affects individual patients in the continuum of care, not only while the patient in his/her care.  Moreover, they must appreciate how their actions impact the EMS system where they work, the EMS profession, the health care system, and society in general.

Instructional methods used by the faculty must be designed to improve contextual competence.  This requires constant reinforcement of the interdependent nature of professional practice.  Faculty must have a clear understanding of the relationship that EMS has with the health care system, the environment, and society in general.   The faculty must strive to repeatedly emphasize the "big picture" and guard against to the tendency of considering the individual practitioner, or the EMS profession, as a separate entity.

Having mastered the theoretical foundations of the content material of a professional curriculum generally develops "Integrative competence".  Students can often memorize treatment protocols without having a true understanding of the underlying pathophysiology.  In the short term, this enables them to pass a test, but this knowledge deficit will result in EMS providers who are unable to integrate the course material with actual patient presentations.  Eventually, this shortfall manifests itself as poor decision making and problem solving skills.   Medical education must balance theory and practice and constantly emphasize the relationship between the two.  Theory and practice are not discreet, mutually exclusive concepts, but rather the opposite sides of the same coin.

Although their importance cannot be overstated, it is effectively impossible for a centrally developed curriculum to identify specific objective and declarative material for contextual, integrative and adaptive competence.  Individual course sponsor's administrators and faculty must keep these competencies in mind as they are developing instructional strategies that build entry-level competence.  Contextual, integrative and adaptive competencies are often the result of leadership, mentoring, role modeling, a focus on high level cognition, motivation and the other more subtle instructional skills of the faculty.

Professional attitudes, in large part, are represented as the affective objectives of the program. Unfortunately, the development of true professional attitudes is much more than the aggregate sum of the individual objectives.  These attitudes represent the current social climate and the moral and ethical identity of the individual and the profession.  They are influenced and shaped through role modeling, mentoring, and leading by example.  It is quite difficult to "teach" in a didactic manner as this is often interpreted by students as preaching.  Generally, professional attitudes are best nurtured through leadership and mentoring.   The faculty is encouraged to provide positive role modeling for the development of professional attitudes in all interactions with students.  CFR course sponsors should take seriously their responsibility to help students develop the following professional attitudes:

>    ***Professional identity***:
>    > The degree to which a graduate internalized the norms of a professional (as stated in the Description of the Profession)
>    ***Ethical standards:***
>    > The degree to which a graduate internalizes the ethics of a profession
>    ***Scholarly concern for improvement:***
>    > The degree to which a graduate recognizes the need to continually increase knowledge in the profession through research
>    ***Motivation for continued learning:***
>    > The degree to which a graduate desires to continue to update knowledge and skills.
>    ***Career marketability***:
>    > The degree to which a graduate becomes marketable as a result of acquired competencies

Out-of-hospital emergency medicine, like all professions, has a professional culture, personality, behavioral norms and attitudes that society considers acceptable. The opinion that others have about EMS as a profession is profoundly influenced by the professional identity of each of its members. It is very important that emergency medial professionals shape their identity consciously, or risk being misunderstood by others. The degree to which new CFR graduates adopt and display the behaviors and attitudes that the profession considers acceptable is one measure of the success an educational program can claim in shaping each student's professional identity.

Ethical behavior is one of the cornerstones of professional attitudes. Ethics involves the critical evaluation of complex problems and decision making that takes into account the ambiguity that is most often present in professional decisions. Ethical behavior and decision making involves the ability to consider the greater social ramifications of a professional person's actions while upholding the standards of the profession.

It is becoming increasingly important to collect and record empirical data to validate clinical decisions made by health care providers. This need is significantly increasing the role of research in medicine. Every medical professional must understand and appreciate the role of research in the future of health care. Of course, not all healthcare providers will conduct research directly, but each must be committed to the concept of research as the foundation for improved decision making. Indirectly, almost all healthcare providers participate in research if, by no other means, through their documentation of patient encounters.

Primary professional education is just the beginning of a life-long journey. The art and science of medicine has changed over time and will continue to do so. This positive change requires that the professional adopt, from the beginning of his/her practice, a sincere commitment to personal growth and continual improvement.

The last professional attitude is actually a collection of all that has been discussed to this point. An individual's effectiveness as a CFR and his/her career marketability is a result of the ability to integrate professional competencies and professional attitudes into his/her own practice and work habits. Not only will this affect the ability to gain

initial employment, it will significantly impact his/her potential for professional advancement.  It is a very real and practical responsibility of education to prepare professionals for the work place and help position them to be able to progressively ascend a career ladder.  Among motivated individuals, this helps keep them intellectually stimulated, professionally challenged, and financially satisfied so they will not feel a need to leave the profession.

Professional education is a journey; not a destination.  It is impossible and fruitless to dissect professionalism into increasingly smaller objectives.  Mastery of hundreds or even thousands of individual objectives does not assure that a graduate of a professional education program will convert these objectives into professional behaviors.   Like Humpty Dumpty, all of the parts may be impossible to reassemble into a meaningful whole.  There are many people who have mastered various parts of professional competence, but they are unable to integrate and synthesize the acquired skills into the effective practice of a profession.  This is the art of medicine, and although it is developed specifically in the later stages of the course, it must be nurtured and allowed to grow through the creation of a supportive and positive educational environment from the first day of class.

**Affective Evaluation**

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.

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 CFR unit of the curriculum.  Typically, this information is presented early in the course and serves to inform the students what type of behavior 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 about each student.  It is recommended

that as many people as practically possible, complete this form and that it become part of the students' record.  The more independent evaluations of the student, the more reliable 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 CFRs.  This is not an all-inclusive list, but serves to help the evaluator in making judgements. Clearly there are behaviors which 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 judgement of the local program's 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 a (first month, second semester, graduate, etc.) level student?

When the cut score judgement is made on acceptability or deviation of competent behavior for each characteristic a percent score can be achieved.  For example, a student may 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 was 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 judgements based upon graduate student and employer survey feedback 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 students 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, uncollaborated 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 <u>any</u> not yet competent ratings.  When possible, use specific behaviors, and corrective actions.

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_____-          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

**Philosophy Regarding Adult Learners**

Individuals participating in this educational program should be considered adult learners even in those programs instructing students younger than age 18. Adult learners are responsible for their own learning. There are several characteristics regarding the adult learner as a First Responder student.

1. CFR students usually want to utilize knowledge and skills they have learned soon after they have learned them.

2. CFR students are interested in learning new concepts and principles; they enjoy situations that require problem-solving, not necessarily learning facts. It is less difficult for them to use the concepts and principles they have gained if they are able to participate actively in the learning process.

3. CFR students learn best if they are able to proceed at their own pace.

4. Motivation is increased when the content is relevant to the immediate interests and concerns of the CFR student.

5. Immediate feedback is essential to the CFR student, who needs to be kept informed of progress continuously.

One intent of this revised curriculum is to alter the methods of instruction used by the instructor. This curriculum has been designed and developed to reduce the amount of lecture time and move towards an environment of discussion and practical skills. This way both learners and instructors are active in the process of learning.

**Some Principles of Adult Education**

**1. Attract and maintain the attention of the CFR student.**
If instructors get off to a bad start, it is often because they are not able to successfully gain and maintain the attention of the student. In these situations, students may be enthusiastic when they arrive and disappointed when they leave.

A clear statement of the purpose of each lesson is of utmost importance in gaining the student's attention. This may be accomplished by using the information found in the motivational statement or the contextual statement of the lesson plan.

There are many methods that may be used to gain the student's attention, e.g., telling a relevant anecdote, posing a unique situation, or asking how they would solve a problem. Once the attention of the student is gained, it must be maintained throughout the entire lesson. After about 15-20 minutes of presentation, it is essential that the student be reinvolved in the learning process. Three methods are often utilized to keep the students active in the process: questioning, brainstorming, and demonstration.

Questions should be used to promote thought, to evaluate what has been learned, and to continuously move students toward their desired goal. Questioning students keeps

them actively involved and keeps them thinking.  It is also appropriate to ask rhetorical questions that are not meant to be answered by the student, but that encourage thinking.  Questions should be open-ended, that is questions should not have "yes" or "no" answers.  Questions should be a significant part of the lesson and should be used in both didactic and practical presentation.

Brainstorming is a special and different type of questioning.  This process generates a wide variety of creative ideas.  There is no right or wrong answer, only creative thinking.  A question is posed to the students, and they are then allowed to provide as many answers as possible.  After all the ideas have been presented, the students can be moved toward the appropriate and important points.

The third technique is demonstration, which bridges the gap between theory and practice.  When demonstrating, it is beneficial to involve the students in the process.  Demonstration should be used during the didactic component of the presentation to break up long runs of lecture material.

**2.  Make the presentation clear and keep it organized.**
By following the lesson plans, instruction can be clear and organized.  However, there are some additional tips that may assist further.
1.  Tell the students what you are going to tell them.
2.  Tell them.
3.  Show them.
4.  Let them try.
5.  Observe.
6.  Praise progress and redirect.
7.  Tell them what you have told them.
8.  Have them summarize what they have learned.

To help keep lessons clear, the students should know the objectives.  The objectives should be presented to the students on the first day of class.  It may be beneficial to give students the written lesson plans and allow them to write additional information in the margins.

**Conducting Patient Care Simulations in the Classroom**

Adults crave hands on training.  One very effective method of teaching is the use of a patient care simulation in the classroom.  This is actually acting out an EMS call to give the student the opportunity to respond with equipment, evaluate the scene, assess the patient, control life threats and do any of the treatments covered in the course which would be appropriate while waiting for the ambulance to arrive.

Simulations give students the opportunity to demonstrate integration of the course's cognitive, affective, and psychomotor objectives into a real life scenario while working with a team of CFRs.  This is an application which puts it all together for the student as they will find patients in the field by incorporating their ability to hear, see, and do as well as begin to emphasize teamwork and leadership skills.

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