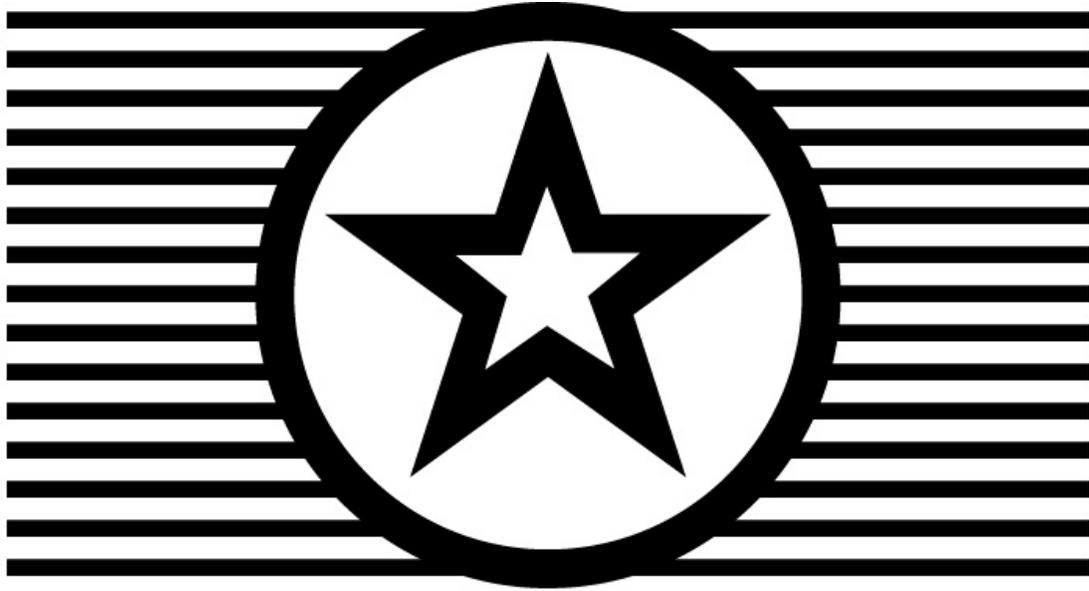


UPDATED: AUGU

TEXAS DEPARTMENT OF HEALTH
Bureau of Emergency Management



TDH

TEXAS DEPARTMENT OF HEALTH

Updated: August 1, 2002

EMS Education & Training Manual

EDUCATION AND TRAINING MANUAL
UPDATED: AUGUST 1, 2002

BUREAU OF EMERGENCY MANAGEMENT

EMS Education & Training Manual

Updated: August 1, 2002

© Texas Department of Health
1100 W. 49th Street
Austin, Texas 78756
Phone (512) 834-6740 • Fax (512) 834-6736

Table of Contents

FOREWORD: EMS EDUCATION IN TEXAS.III	
PLANNING AND PREPARATION.....1	
SUBMITTING A PROGRAM APPLICATION.....1	
PREPARING THE SELF-STUDY.....1	
DEVELOPING POLICIES & PROCEDURES.....2	
SELECTING & SUPERVISING INSTRUCTORS.....2	
PLANNING EFFECTIVE CLINICAL INTERNSHIPS.....3	
<i>Site Selection</i>3	
<i>Clinical Objectives</i>4	
<i>Supervision of Students</i>4	
<i>Documentation</i>4	
<i>Limitation of Civil Liability</i>4	
PLANNING EFFECTIVE FIELD INTERNSHIPS.....5	
<i>Site Selection</i>5	
<i>Field Internship Objectives</i>5	
PLANNING OTHER COMPONENTS FOR PROGRAM SUCCESS.....6	
<i>Equipment Procurement</i>6	
<i>Classroom Selection</i>7	
<i>Student Selection</i>7	
<i>Student Evaluation</i>8	
<i>Evaluating Practical EMS Skills</i>9	
<i>Working with the Americans with Disabilities Act</i>9	
<i>Class Scheduling and Knowledge Objectives</i> ..11	
<i>Medical Director Involvement</i>11	
EVALUATION AND IMPROVEMENT.....13	
PULLING IT ALL TOGETHER.....13	
<i>Program Evaluation & Quality Improvement</i> .13	
One: Develop Program Goals & Objectives 13	
Two: Determine Student Competency14	
Three: Encourage Student Evaluation of the Course14	
Four: Evaluate the Program’s Written Tests 14	
Five: Evaluate Program Instructors.....15	
Six: Document Student Performance.....15	
Seven: Maintain Complete Student and Course Files15	
Eight: Involve Preceptors in Student Evaluation.....16	
Nine: Involve the Medical Director in Planning & Evaluation.....16	
Ten: Establish an Active Advisory Committee16	
<i>The Self-Study & Site Visit Process</i>16	
<i>Self-Study Instructions</i>18	
Contents of Self-Study Report19	
Self-Study Considerations to be documented at Site Visit.....22	
The Site Visit.....24	
Typical Schedule for the Site Visit Evaluation24	
COURSE APPLICATION PROCEDURES26	
Course Approval for Provisional & Approved Programs.....26	
Course Approval or Notification for Accredited Programs.....27	
Multiple Site Programs.....27	
RESOURCE INFORMATION..... 29	
CONTINUING EDUCATION..... 31	
Types of Continuing Education 31	
Contact Hours and Content Areas.....32	
Continuing Education Approval:.....33	
Ongoing Continuing Education Programs:.. 33	
National and state EMS standardized courses and conferences:.....33	
Record Keeping.....35	
Re-certification and Continuing Education 35	
Other Re-certification Options.....35	
Choosing a Re-certification Option37	
APPENDICES 38	
APPENDIX A:	
SAMPLE CLINICAL INTERNSHIP OBJECTIVES..... 39	
EMT-Basic Internship Objectives.....40	
EMT-Intermediate Internship Objectives...43	
APPENDIX B:	
CLINICAL AND FIELD INTERNSHIP FORMS.....47	
APPENDIX C:	
SAMPLE FIELD INTERNSHIP OBJECTIVES52	
Field Internship Objectives.....53	
APPENDIX D:	
EMS TRAINING COURSE EQUIPMENT LIST.....55	
APPENDIX E:	
FUNCTIONAL POSITION DESCRIPTION60	
APPENDIX F:	
LIMITATION OF CIVIL LIABILITY65	
APPENDIX G:	
MEDICAL DIRECTOR INFORMATION FORM.....67	
APPENDIX H:	
COURSE APPROVAL/NOTIFICATION FORM.....69	
APPENDIX I:	
SAMPLE PRECEPTOR TRAINING COURSE.....71	
“Mentoring in the Field”.....72	
APPENDIX J:	
PROGRAM APPLICATION74	
APPENDIX K:	
RE-CERTIFICATION COURSES76	
ECA RE-CERTIFICATION COURSE77	
EMT RE-CERTIFICATION COURSE79	
EMT-I RECERTIFICATION COURSE82	
EMT-P RE-CERTIFICATION COURSE86	
APPENDIX L:	
REMEDIAL COURSES.....91	
ECA REMEDIAL COURSE92	
EMT-B REMEDIAL COURSE92	
EMT-I REMEDIAL COURSE93	
EMT-P REMEDIAL COURSE.....93	

Foreword: EMS Education in Texas

Education and training is the foundation of EMS in Texas. There are no out-of-hospital emergency care professionals who need to know more, or less, than any other because of the structure of their organization or the community in which they work. All health care professionals play a vital role and must be prepared to meet the needs of their area. To accomplish this, EMS education and training should be an effort in which the results are dependent on planning, preparation and successful execution of the objectives of the program. A significant amount of evaluating options and planning for contingencies should be a part of any proposal to begin a new program for initial training of EMS personnel. EMS training should be available to those who need it in a convenient form of the highest possible quality. At the same time, EMS should promote its own growth and acceptance within the ranks of the allied health professions. Acceptance of EMS as a true profession will not occur until such time as its members consistently receive quality education. As a relatively new and developing profession, Texas EMS should be continually progressing towards that goal; but as we are a developing profession and as Texas is a big and diverse state with resources which vary tremendously from region to region, we have not yet reached the point at which college based programs can meet all our training needs. Therefore, we should depend on those who are willing to fill in that gap by developing local learning opportunities. Advanced programs that do not offer Associate's or Bachelor's degrees are encouraged to establish articulation agreements with community colleges or universities so a student seeking formal academic credit may continue with a minimum loss of time and/or duplication of learning experiences.

This manual is designed to aid all types of programs in meeting the needs of EMS education and training. It is specifically targeted at those who do not have the benefit of, or access to, institutions of higher learning but who possess the knowledge, skills, resources and dedication to provide sound EMS education and training in areas where it would otherwise be unavailable.

The EMS Act charges The Texas Department of Health with the responsibility for developing and publishing EMS training and education standards within Texas. This manual lays out those standards. Anyone who has recognized the need for EMS training in a given area may submit an application for an EMS training program as set forth in Rule 157.32.

Planning and Preparation

Submitting a Program Application

Anyone who has recognized the need for EMS training in a given area may submit an application for an EMS training program as set forth in Rule 157.32. The application (see form in *Appendix J*) should be submitted to the appropriate EMS regional office. Upon reviewing the application, regional personnel will want to meet with the applicant to begin an evaluation of the applicant's skills, abilities, sponsorships, resources and plans concerning EMS education and will request that the applicant submit a self-study describing the program's overall process.

Preparing the Self-Study

All the planning and preparation a coordinator carries out in anticipation of offering a training course for approval must be documented in a **self-study**. After reviewing the completed self-study report, the regional office shall notify the program of deficiencies or, noting none, notify the program of **provisional approval**. A program and its self-study are usually approved for a four (4) year period. However, the self-study is meant to be a living document, and it must be continuously revised to reflect ongoing evaluation and refinements of the program. To successfully complete an initial training course, the program staff should plan and prepare in several areas. All these areas and the planning associated with them should be described in the self-study. These areas include, but are not limited to:

- Policies and procedures,
- Instructor selection and supervision,
- Clinical internship,
- Field internship,
- Psychomotor skills training and testing,
- Equipment procurement,
- Classroom selection,
- Student selection,
- Insurance coverage,
- Class scheduling and knowledge objectives, and
- Medical direction and advisory committee involvement.

Developing Policies & Procedures

Policies and procedures are important and useful tools in establishing an understanding between the individuals providing the educational experience and the students attending the course. The program should consider:

- Developing policies that are simple and easily understood.
- Providing students with a copy of course policies on or before the first class meeting
- Reviewing the policies and procedures with students early in the course and with instructors before allowing them to teach or examine skills in a course.

It is as important for coordinators and instructors to understand course policies and procedures and to commit to carrying them out as it is for students.

The policies and procedures listed in the box, as well as others that are appropriate, should be addressed for all courses. However, it is vital that course policies and procedures be written to specifically address **each** program according to its needs.

Policies & Procedures for Consideration

- Student Screening & Appeals
- Student Participation
- Student Tardiness
- Class Attendance
- Clinical Internship
- Field Internship
- Complaint Resolution
- Safety and Health
- Dress Requirements
- Grading Policies
- Test Review and Make-up policies

Selecting & Supervising Instructors

Among the most important jobs of a program director or course coordinator is the selection of instructors. Instructors should:

- Be good leaders
- Have good organizational skills.
- Have a thorough knowledge of state EMS rules and regulations, as well as a broad perspective on national EMS issues.

Certifications and/or adjunct training are good indications of expanded learning experience and ability. Completion of teaching courses is an indicator of expanded learning and teaching abilities.

Some considerations to take into account in hiring an instructor are:

- Previous work experience.
- References from coordinators and students who know the instructor.
- An instructor's teaching style and communication abilities are of vital importance and worth discussing with those who know the instructor.
- Other considerations include pass/fail rates, course completion rates, class grade averages, professional affiliations and the attitude and feelings the individual expresses about teaching.

Qualities of a Good Instructor

- Enjoys teaching
- Possesses patience
- Exhibits maturity
- Acts fairly in all circumstances
- Possesses a good track record
- Knows the EMS industry
- Always willing to learn
- Always willing to improve

Above all, the program director and course coordinator should remember that just because an individual is an exemplary medic, it does not necessarily follow that he or she will be an exemplary instructor.

Once the program director and/or the course coordinator have selected instructors, the job is far from finished; commitment to continuous review and evaluation of staff members then begins. All program personnel should be formally evaluated each year. The results of the evaluation must be documented in writing and shared with the staff member in a closed-door meeting where issues may be discussed and problems remedied.

Planning Effective Clinical Internships

Site Selection

Clinical internship facilities that meet the experience needs of each student are vital. Coordinators should secure written agreements that have been signed and dated by representatives of the program and the clinical facilities that give students opportunity for exposure to, and interaction with, real patients. Of utmost importance are the relationships developed among the course coordinator, the clinical coordinator and the clinical facility's personnel. ***The bottom line is that if the student, preceptors, nurses, doctors and other allied health professionals do not understand why the students are present the clinical experience will be incomplete.***

An important objective in selecting a clinical facility is to select a facility that has an adequate number of diverse patients with whom the students can interact. Assign no more students to a facility at any one time than the patient census and staff resources will support.

Clinical Objectives

The intended purpose of clinical internships is to capture the valuable collective experience that comes from actual interaction with real patients while being guided by experienced health care professionals. Coordinators are encouraged to work with their clinical coordinator to define clinical objectives in terms of numbers of specific procedures performed successfully and identify specific patient types to be encountered.

Students should have clear guidance during clinical internship. Performance expectations and objectives clearly established by the course coordinator and/or the clinical coordinator and explained to the students, preceptors and hospital staff will assist in maximizing the clinical rotation experience. Sample clinical objectives are provided in **Appendix A**.

Supervision of Students

The proper supervision of students is imperative during clinical internship. Lack of such supervision has resulted in more than a few programs being dismissed from clinical facilities.

The most important component in assuring an effective and successful clinical experience for students and their clinical hosts is the clinical coordinator. A clinical coordinator should:

- Have a clear understanding of the different levels of EMS certification and their respective skill abilities
- Have a clear understanding of the operations of hospital departments
- Have the ability to relay that understanding to the various personnel upon whom the success of the clinical rotations depends.

Documentation

Students and preceptors must be prepared to complete all clinical internship documentation required for certification. Documentation must include at a minimum, “Internship Documentation Forms” and “Internship Performance Improvement Appraisals.” Sample forms are included in **Appendix B**.

Limitation of Civil Liability

Advanced courses require greater interaction between the student, patient, coordinator and clinical coordinator and preceptors. Students often perform their advanced skills on real patients for the first time during the clinical internship. Many facility administrators are concerned about the liability potential related to students in a clinical facility. **Chapter 773 of the Health and Safety Code** addresses a Limitation of Civil Liability. The box below contains the actual language of the Texas Health and Safety Code. The same language may be found in **Appendix F** in a form that may be easily

copied and supplied to each potential clinical site when you negotiate the use of clinical facilities.

**Section 773.009
Limitation of Civil Liability**

A person who authorizes, sponsors, supports, finances, or supervises the functions of emergency room personnel and emergency medical services personnel is not liable for civil damages for an act or omission connected with training emergency medical services personnel or with services or treatment given to a patient or potential patient by emergency medical services personnel if the training services, or treatment is performed in accordance with the standard of ordinary care.

Planning Effective Field Internships

Site Selection

Field internship providers that are able to meet the needs of each student are crucial to the educational programs success. Coordinators must have written agreements, signed and dated by representatives of the program and the field internship providers, that give students exposure to, and interaction with, patients. Each program should provide proof that field internship preceptors have been identified and trained to precept and evaluate student performance. A sample preceptor-training outline can be found in **Appendix I**.

Considerations in selecting a field internship provider:

- The nearest provider may not be the best choice.
- Providers should be screened carefully to insure the selection of those that have an adequate call volume and an appropriate mix of call types.
- Select a provider that strives for the greatest professional representation of what an EMS provider should be.

The same limitation of civil liability discussed in regard to clinical facilities applies to ambulance providers. The box on page 5 contains the actual language of the **Texas Health and Safety Code**.

Field Internship Objectives

The goal of field internship is not merely to accumulate the minimum number of field internship hours or runs required for certification. The purpose of field internships is to experience assessing, treating and managing real patients while being guided by experienced and competent out-of-hospital emergency health care professionals. The importance of adequate internships in which students are put to

work, observed and skillfully critiqued by knowledgeable and empathetic preceptors cannot be overstated.

Performance objectives should be established and clearly defined and explained to the students, preceptors and EMS personnel with whom students will come in contact during their field internships. Sample field internship objectives are provided in **Appendix C**.

The EMS coordinator should document that each field preceptor has been given the opportunity to review the evaluation document and is trained in using it.

Planning Other Components for Program Success

Equipment Procurement

In planning and writing the self-study, the coordinator should assess the equipment needs of the program. Later, during the formal site visit, have every piece of equipment available, if requested, for the site visit team to assess.

Plan equipment needs based on the manner in which the courses within the program will be taught. The number of students is, of course, critical to planning equipment needs; but so is the ratio of students to instructors. The goal is to assure enough functional equipment to provide each student an adequate opportunity to practice until he or she consistently meets performance expectations.

Borrowing equipment is almost never an appropriate way to provide for student skill practice. It will be permitted for small programs that offer infrequent classes. However, those programs which offer classes on a regular basis will be required to own all necessary equipment to insure that it is in proper working condition and always readily available to the students. Provider-based programs should not compromise response-ready EMS units by “borrowing” patient care equipment for classroom use.

Once equipment has been acquired and accounted for, the coordinator’s responsibility for equipment is not finished. **Equipment is not useful unless it is clean and in good working order.** If the coordinator does not have time to function as equipment manager, he should provide for an equipment manager to see that equipment is well maintained and always available to students.

In addition to skills equipment, there must be adequate equipment to meet the student’s needs within the classroom. Dry erase boards and even overhead projectors are no longer adequate to keep the attention of students. The coordinator should consider the use of an audiovisual projector to be used in conjunction with a laptop computer and PowerPoint or Corel Presentations software. Other computer aided instruction and review should be considered as well.

Audiovisual supplies and computer aided instructional material can and do add a dynamic quality to the classroom. However, the coordinator should be careful to see that material is current.

A complete list of minimum equipment requirements for each level of training can be found in **Appendix D**.

Classroom Selection

Classrooms are very important in helping students learn and instructors teach. Every coordinator will not be able to provide the perfect classroom; however, each coordinator will be required to provide a controlled classroom environment that meets the basic needs of those seeking to learn. All communities have churches, schools, city offices, law enforcement facilities, fire stations, community centers, libraries or hospitals that have classrooms. The coordinator should search out the best of these and arrange for its use.

Classroom Considerations:

- Lighting
- Space
- Comfort
- Safety
- Restrooms
- Heating & Cooling
- Acoustics
- Accessibility
- Break Facilities
- Telephones
- Storage Space

Comfort and convenience make the difference between a good classroom and an excellent classroom. Restrooms should be near the classroom. Accessibility to a classroom must be safe and easy. Breaks are most productive for students if vending machines and telephones are nearby.

Storage space should not be an afterthought in selecting classroom facilities. After spending thousands of dollars to purchase equipment for an EMS course, secure storage for that equipment should be very important to the program director and the course coordinator. Hauling equipment to and from a classroom can decrease the time spent in class participation. Nothing is more discouraging to students and instructors than discovering something needed for class was forgotten when hauling equipment from one area to another.

Student Selection

Many health care educational programs screen students before accepting them into the program. Paramount in screening students is the screening criteria. If a screening tool is an examination:

- The examination must be valid and reliable.
- Clearly define the minimum passing grade.
- Clearly define the process through which it will be used to decide whether or not to accept a student.

Some programs require specific reading level ability and use validated commercial examinations to measure each student's reading level.

Much can be learned during screening interviews. Make sure interviews:

- Are fair and treat all candidates equally.
- Design and use the same interview questions for all candidates.
- Design an interview scoring mechanism and familiarize all interviewers with it before attempting to award a score.
- Use caution not to ask irrelevant questions or questions that could imply discrimination, sexual harassment or invasion of privacy.

While it is appropriate to exclude an individual who cannot perform essential functions with reasonable accommodation, students cannot be discriminated against on the basis of a disability in the offering of programs or services. Each prospective student **must** be given the standard functional job description that is found in **Appendix E**. Prospective students need to understand the competencies and tasks required within the profession **before** entering a training program. The information found in the “Student Evaluation” section of this guide concerning the Americans with Disabilities Act will also provide guidance to prospective students and program staff.

While a program cannot discriminate against a prospective student on the basis of a disability or any of the other protected classes such as race, religion, sex or age, the screening of students becomes very important for EMT Intermediate and Paramedic courses which make use of scarce clinical and field internship sites. Address this issue effectively and legally. Such screening is of particular importance at institutions where “Open Door” policies are the norm, where anyone is allowed to register for courses and where denial of entry into the program is rare.

Student Evaluation

Evaluation of student performance in the training and education program is mandatory. All instructors, clinical coordinators and field and clinical preceptors should be familiar about the purpose and methods of student evaluation and require them to carry out evaluations with improvement, support and encouragement as high priorities.

The primary focus of student evaluation is facilitating improvement. Making evaluation a punitive function is very easy, all too common and most unfortunate. Students attend EMS classes to learn and improve their skills. Therefore, humiliation is not conducive to improvement and building self-esteem.

Before evaluation of the students begin they and the evaluator should have a clear understanding of what is expected of them. This can best be accomplished through the use of written course policies and objectives. Course policies explain what the student is expected to do under various conditions. Course objectives explain what the student is expected to learn during the course, and internship objectives explain what the student is supposed to do during clinical and field internship.

Written tests and skills performance examinations are commonly used to evaluate students’ progress. Coordinators and instructors should plan so that students have remedial time to correct deficiencies and improve throughout the course. A

reasonable examination linked to objectives, assignments and class work to which the student has been exposed, produce good results and allows students to succeed, grow, improve and become increasingly confident.

Evaluating Practical EMS Skills

Program directors, coordinators and instructors should be clear in their understanding of the role of skills proficiency verification in their classes. Evaluating skills must be a valid process that clearly identifies those students who can and those students who **cannot** perform the skills required of all EMS personnel.

Like written evaluations described in the section above, the goal of skills evaluation and verification is to promote learning. Students who show proficiency on a given skill can then concentrate on achieving proficiency in other skills areas. Students who do not demonstrate proficiency should be given feedback as to the problems identified and allowed to continue training and practice until the next skills proficiency verification exercise. The coordinator should determine, as a part of school policy, how many chances a student will be given to demonstrate proficiency.

All skills performance evaluation activities **must** be documented on skills evaluation forms (score sheets). Certain basic skills score sheet and criteria are available from the Department and may be obtained from the regional EMS office. The program should consider designing all advanced skills evaluation forms and criteria. The criteria for evaluating skills performance are an item that must be covered in the program's self-study. All records of skills evaluation must be maintained with other course records for five (5) years and are subject to audit during a site visit or upon the investigation of a complaint. In general, criteria should be designed to hold students to basic competency in each skill. A coordinator who desires to hold students to a higher standard than basic competency should be careful to document that standard in the self-study and other course material.

Working with the Americans with Disabilities Act

The **Americans with Disabilities Act (ADA) of 1990** has implications for coordinators with which they should be familiar. Many of these implications center around the issue of skills proficiency, and the coordinator should realize that the ADA has implications not only for how he deals with students, but also for how he deals with potential students. Among the many provisions of the ADA are several that pertain specifically to agencies, institutions and organizations that provide courses or examinations leading to licensure or certification.

The law permits testing that requires the use of sensory, manual or speaking skills where the tests are **intended to measure essential functions of the profession**. For example, an applicant with dyslexia could be required to take a written exam if his ability to read is an essential function of the profession and the exam is designed, at least in part, to measure the applicant's ability to read.

A second example is one dealing with skills proficiency verifications that must be performed within established time frames. Performing a skill within a certain time frame can be required ***if speed of performance is an integral part of the skill being measured***

Both the ability to read and the ability to perform skills within time frames **are** essential functions for an EMT. Therefore, in EMS, a person with a disability may **not** be denied the opportunity to take an examination; **but** this person shall be required to take a written exam and pass the skills proficiency verifications within established criteria.

It is very important to have a functional job description that details the essential functions of the profession. A standardized functional job description is located in **Appendix E**

Program directors, coordinators and instructors as well as clinical and field preceptors should be familiar with the following specific points concerning ADA that pertain to those involved in EMS training and education programs:

- Coordinators should review the standard functional job description and the information concerning the ADA, which is found in this section with every prospective student. Prospective students need to understand the competencies and tasks that are required within the profession *before* entering a training program.
- Students *cannot* be discriminated against on the basis of a disability in the offering of educational programs or services.
- There can be *no* accommodation during screening, evaluation or course examinations that will compromise or fundamentally alter the evaluation of skills that are required to function safely and efficiently in the profession.
- Students who have received an accommodation during the course need to fully understand that there is a separate process for requesting an accommodation for the written certification exam and eligibility for an accommodation is determined on a case-by-case basis. In other words, just because a student was allowed an accommodation during the course does not guarantee an accommodation for the state written certification exam. Documentation confirming and describing the disability should be submitted according to policy for consideration.

There are certain accommodations that should not be allowed in EMS training because they are not in compliance with the essential job functions of an EMT. Four of these are as follows:

1. Students should **not** be allowed additional time for skills with specific time frames. Obviously patients would suffer due to life threatening conditions in emergency situations if treatment were delayed.
2. Students should **not** be allowed unlimited time to complete a written exam. This request is not considered reasonable because a candidate should be able to complete a test within a finite amount of time.

3. Students should **not** be allowed to have written exams be given with an oral reader. The ability to read and understand small English print is an essential function of the profession, and written exams are designed, at least in part, to measure that ability.
4. Students should **not** be provided a written exam with a reading level of less than grade eight because the profession requires a reading level of at least grade eight to work safely and efficiently.

Because of the critical nature of the tasks needed in emergency situations, accommodation requests need to be considered very carefully, on a case by case basis. The safety and welfare of the community must be insured while providing full protection of the certification applicant's rights. The main question to be considered is: with the accommodation being requested, can this individual perform the essential functions of the job safely and efficiently?

"Request for Accommodation" forms are available along with "Certification Application" forms from the Regional EMS Office. The "Request for Accommodation," is also reproduced in **Appendix E**.

For more information on the *Americans with Disabilities Act*, you may call the Governor's Committee for Persons with Disabilities at (512) 463-5739.

Class Scheduling and Knowledge Objectives

Class scheduling is sometimes the most difficult part of course planning. Once a program is conducting multiple courses simultaneously, class scheduling becomes increasingly more difficult.

Coordinators cannot reasonably be expected to meet the individual scheduling needs of each individual student. On the other hand, coordinators **should** make every attempt to meet the needs of common types of students in scheduling classes. Many of the people wishing to upgrade from basic to advance EMS certificates are full-time workers who must schedule their educational classes at night or on weekends.

Students should receive copies of the knowledge objectives by the first class meeting, and instructors should refer students to them often. Coordinators must be sure to meet or exceed the minimal hourly requirements for all courses.

Sequencing of classroom content and of clinical rotations and field internships should be logical and produce an effective, efficient educational experience. For example, do not send students to clinical rotations until they have the minimum knowledge and/or skills necessary to perform in a particular clinical area.

Medical Director Involvement

Medical directors are a valuable asset to EMS education and training programs. Their involvement in the training program is a necessity. Medical directors should be involved in all the planning stages of a program. An active medical director is one of the most critical components in assuring adequate clinical and internship experiences for students. The medical director must attest to each graduate's competence and approve each step towards the achievement of competence. The

medical director is also an excellent source for review of medical accuracy of your curricula and exam content. Because a physician's time is valuable, coordinators should plan carefully to maximize the medical director's input into the training process.

Some medical directors may enjoy teaching certain segments of the course or helping select guest lecturers. Overall, a medical director's responsibility should be to help improve the quality of a course. Course medical directors are required for all levels of training.

The medical director should take an active part in determining skills competency, especially in advanced courses. The medical director should offer input in drawing up evaluation criteria for skills in the program, and he or she may help test in stations such as megacode.

Evaluation and Improvement

Pulling It All Together

Planning and preparation is the foundation upon which the self-study and site visit cycle are built. In the evaluation and improvement cycle, the program director, the course coordinator and their program staff develop detailed plans to insure that the education program is functioning, as it should. When all this planning and preparation is finished it is documented in the formal self-study and submitted to the Texas Department of Health for review. Upon approval of the self-study, the program is allowed to begin. The program director, the coordinator and the medical director, as well as other appropriate groups, should closely evaluate the program as the first classes are conducted. The Texas Department of Health will continuously evaluate the efforts of program staff and provide suggestions, or in some cases, establish requirements to insure that students are receiving training adequate to meet the requirements of state EMS certification. Finally, after the program has completed at least one course, a formal site visit will be scheduled to allow the department, as well as program staff, a chance to look closely at the successes of the program, identify any weaknesses and formulate plans for continued evaluation and improvement.

Program Evaluation & Quality Improvement

EMS education is not the only predictor of competency, but it is a major one. The program director and the course coordinator should be willing to take the steps necessary to provide educational opportunities that result in competent entry-level certificants.

The following 10 guidelines will help the program director and the course coordinator to take a close look at each component of the educational program. By taking an even closer look at the results, positive changes and improvements can be implemented.

One: Develop Program Goals & Objectives

- Goals and objectives should be based on input from and be responsible to the needs of the program's communities of interest.

Two: Determine Student Competency

- Two major areas of weakness are poor student test-taking skills and inadequate practice with patient situations. There are excellent guidelines on test taking presented in the first chapter of most exam review textbooks. Students should also practice taking tests with patient scenario questions. A student who successfully completes the course but fails the attempts at the state examination must complete a **remedial course** before attempting the state examination for the third time. Sample remedial courses may be found in appendix L.
- Do an employer satisfaction survey. Ask about entry-level skills, attitudes, orientation experiences and retraining requirements of recent graduates upon hiring.
- Do a graduate satisfaction survey. After students gain experience, ask them in what skills and content areas they are weakest, what additional training would have helped and what training was irrelevant.
- Most important, use the results from these sources to make needed changes.

Three: Encourage Student Evaluation of the Course

- Get written and verbal feedback from students on the following:
- Classroom instruction
- Skills teaching
- Clinical rotations
- Internship
- Overall course experience
- Use the results from these sources to make needed changes. If feedback is not forthcoming, ask the questions in a different, possibly less intimidating, manner.

Four: Evaluate the Program's Written Tests

- Look at poor results. Poor results may be due to lack of test-taking skills.
- Look at questions missed by most students. Questions missed by most students are due to one of the following:
- The content is not being taught or reinforced properly,
- The key is wrong,
- The question is not clearly stated,
- There are two or more correct answers, or
- The test is too long.
- Look at exams for validity. When an exam is valid, it is testing what it is supposed to measure. To increase exam validity:
- Use objectives when writing test questions,
- Write questions similar to class and homework assignments,
- Write patient situation questions,
- Write tests so that the content is proportional to content emphasis in program lectures, and
- Use caution with tests written by others.

Look at exams for reliability. When tests are reliable, the scores are consistent over time. To increase exam reliability:

- Give reasonable time for testing (for example – 1 multiple choice per minute, 3 true-false per minute),
- Increase the items on each test,
- Increase the number of tests and
- Write clear questions.

Never think of tests as tools to find out what students **don't know**. Use them as tools to find out what they **do know** about clearly defined, well-disseminated knowledge objectives.

Five: Evaluate Program Instructors

Coordinators have the responsibility to evaluate their instructors and must carry out this responsibility in a formally documented manner. The instructor evaluations and the follow-up action taken are part of the program records and are subject to review at the site visit or during an investigation of a complaint.

- Instructors should evaluate each other. Peer evaluation is a healthy learning experience for all parties.
- Students must be given the opportunity to evaluate the instruction they are receiving from instructors and guest lecturers during the course as well as at the end of the course. The results of these evaluations and the actions taken must be documented in school records.
- The results of these evaluations should be used to make needed changes.

Six: Document Student Performance

Documentation must be accurate and occur as an event takes place. Record facts and direct observations of student performance. Do not rely on memory and hearsay.

- Describe specific behavior, not personality, and cite policies as points of reinforcement as well as to support disciplinary action.
- Maintain consistent documentation on all students using the same format and detail in recording each student's positive and negative behavior.

Seven: Maintain Complete Student and Course Files

Maintain student and course files with attention to detail. Student competence and course quality is not an opinion. It is a judgment based upon written and skills exams, exam results, completion of clinical objectives, internship competency; documentation of remediation, student evaluation of instructors and preceptors, insurance documents, inoculation records, complaints and evaluations of students by the training staff. The importance of maintaining good student records cannot be overstated. The department will frequently ask to see student records for one reason or another. An inability to produce requested records, for whatever reason, may result in sanctions on the program.

Eight: Involve Preceptors in Student Evaluation

Field internship is the final and most critical phase of training. Preceptors **must** be qualified, have the desire to act as preceptors and understand student objectives.

Nine: Involve the Medical Director in Planning & Evaluation

An active medical director is one of the most critical assets for assurance of an adequate clinical and field internship experience for students.

The medical director should attest to each graduate's competency and approve of each step towards the achievement of competence. The medical director is also an excellent source for review of medical accuracy of curriculum and exam content.

Ten: Establish an Active Advisory Committee

Encourage key people within the community, such as physicians, elected officials, CEOs within firms who hire program graduates, nurses who help train students in clinical internships and active consumers to become involved with the program. An Advisory Committee is a required component of the self-study. Show the Advisory Committee how the program trains students who will be serving within their community.

Program evaluation and quality improvement require great attention to multiple details. How is the coordinator to know if students are competent? How is he or she to determine if the program is providing the best education possible? The answers to these questions can come only from:

- State exam results;
- Employer surveys;
- Graduate surveys;
- Student satisfaction surveys;
- Evaluation of written tests;
- Review of clinical and field internship evaluation forms;
- Evaluation of instructors and preceptors;
- Documentation of accurate and consistent student performance;
- Maintenance of complete student and course files;
- Involvement of the Medical Director in evaluation of student performance;
- Involvement of the preceptors in evaluation of student performance; and
- Establishment of a supportive advisory committee.

The SelfStudy & Site Visit Process

All EMS initial and formal remediation courses are conducted through programs. It is strongly urged that ongoing programs presenting multiple courses each year be headed by a program director that is responsible for the business operations of the program. In addition, there must be a certified EMS Coordinator that is responsible for the educational aspects of the course as well as for the aspects of the course that fall under regulation by the Health and Safety Code. In small

programs that meet infrequently and/or have few students the duties of the program director and the EMS Coordinator may be combined in one person that is a certified EMS Coordinator.

For those who do not have the opportunity to work within Associate Degree programs, there are other entities in which programs can be established. These include local EMS providers, local hospitals and private companies created by EMS coordinators for the purpose of carrying out EMS training.

Any new program applying for approval **must** begin at the basic level. A self-study must be completed and submitted to the regional office for review. The results of the self-study must be documented in a format established by the Department of Health and submitted for approval. The fee for reviewing a self-study is \$25.00 for basic programs and \$50.00 for advanced programs.

When the Department has determined that the self-study for a new program is acceptable under the guidelines in this manual, the program will be granted provisional approval. Then, **and only then**, should the program's coordinator submit an application for the program's first course. The review and approval of a self-study may take six (6) to eight (8) weeks assuming that the self-study is in order when it is submitted. Errors or omissions within the self-study document may extend the time required for approval.

Once the self-study has been reviewed and approved, applications for courses may be submitted. Applications for basic and advanced courses must be submitted **at least** thirty-days (30) prior to the proposed starting date. It is wise to submit advanced courses **at least** six (6) weeks prior to the proposed starting date. The coordinator for a new program may need to give a longer notice to allow for first time problems that may surface. The coordinator should check with the appropriate Regional Office for guidance on submission of course applications as varying numbers of staff and workloads in the regions impact the time needed to approve course applications. Before the course is approved, regional staff may want to visit the proposed classroom, visit clinical and internship sites or assess other components of the program to assure they meet minimum requirements consistent with a sound training experience for the students. This does **not** constitute a site visit.

On occasion, a program may come into existence for the purpose of conducting a single course offering with no desire to establish an ongoing initial training program. In such cases, the self-study must be completed as for any other program. However, the appropriate Regional Office shall arrange to conduct a site visit **before** the course is approved to start. When the course is over, the regional office will evaluate the outcome of the course and document the findings.

Self-studies **must** be updated as needed to document changes in the program, its staff, its clinical and internship affiliates, its medical direction or other pertinent course components. These updates should be submitted to the appropriate Regional Office and they **must** be included in the renewal application submitted to the Department at the end of the four (4) year approval period.

Self-Study Instructions

In preparing the self-study report, information should be organized in a manner like that described in the self-study preparation outline within this manual. The self-study should be produced on standard 8 ½ by 11-inch paper and all pages must be numbered consecutively. ***When preparing the report, the coordinator must write each question or statement being addressed followed by the answer.*** Complete sentences convey thought better than fragmentary expressions and ***should*** be the norm. Two copies of the self-study report are to be mailed or delivered to the appropriate Regional EMS Office at least ninety-days (90) prior to the submission of a course application for the program's first course. At least one copy must be retained for reference by the program director and/or course coordinator. New programs will not be allowed to start courses until a self-study has been accepted as complete and an application for the course has been approved.

Upon review and determination that the self-study is complete, a letter of the approval or disapproval of the program will be sent to the program director or the coordinator. Such notification shall take place not later than sixty-days (60) from the submission of the self-study.

To aid in preparation of the self-study, the outline on the following two pages is offered for review.

Contents of Self-Study Report

A. General Information

1. Name, address and level of program.
2. Name and address of sponsoring institution.
3. Names and addresses of clinical affiliations.
4. Names and addresses of field internship sites.
5. Name and phone number of program director and medical director.
6. Name and phone number of person responsible for the preparation of the self-study.
7. List of other allied health-training programs, if any, offered by the program or within the institution.
8. ATTACH an organizational chart of the sponsoring institution that shows the relationships under which the program operates and all persons directly involved with the program.
9. Describe how the financial resources of the program are sufficient to assume the achievement of program goals.
10. State the length of each type of course the program will conduct, the number of clock hours, amount of academic credit (if applicable) and the type of certificate or degree offered (if applicable).

**A. General Information
(continued)**

11. State approximately how many students will be accepted into the program per year.

B. Program/Course Policies & Procedures

1. ATTACH a copy of all information to be provided to prospective and enrolling students. Identify which material is to be provided to enrolling students only.
2. ATTACH copies of policies and procedures that are to be used.

C. Instructor Selection & Evaluation

1. List the names and qualifications of instructors, clinical coordinators, preceptors and guest lecturers associated with the program.
2. Describe the methods that are to be used to evaluate instructors, clinical coordinators, preceptors and guest lecturers.

D. Clinical and Field (Ambulance) Internship (Note: This section does not apply to programs offering only ECA training.)

1. ATTACH copies of current clinical and field internship agreements.
2. Explain how patient census and run volume will be reviewed and determined to be appropriate for the level of course and number of students.

Contents of Self Study Report (continued)

D. Clinical and Field (Ambulance) Internship (continued)

- 3. ATTACH copies of clinical and field internship policies and procedures if not included in policies and procedures for the program mentioned above.**
- 4. ATTACH copies of all clinical and field internship objectives that are used in the program.**

E. Equipment

- 1. Describe how the equipment and supplies are adequate to meet the needs of the program.**
- 2. Describe the process for replacing or repairing old or broken equipment.**

F. Classroom & Facilities

- 1. State the maximum number of students that can be accepted into each course level for which the program provides training. State the maximum number of courses to be conducted concurrently.**
- 2. Describe how the classroom, laboratory and instructional materials are adequate to fulfill the needs of the program given the maximum number of students in the program.**
- 3. Describe how the library resources are appropriate to support the curriculum for the number of students enrolled in the program.**

G. Student Evaluations

- 1. Explain how students will be evaluated during program courses.**

G. Student Evaluations (continued)

- 2. Explain how written exam and performance evaluation results will be reviewed with students.**

H. Medical Director Involvement

- 1. Identify the program's medical director; use form in *Appendix G*, and state if he/she is under contract or if he/she is involved with the program through a letter of agreement or contract.**
- 2. Explain how the medical director will be used to review student performance and assure attainment of competency.**

I. Overall Program Evaluation

- 1. Discuss the program's goals and objectives.**
- 2. Describe how these goals and objectives are responsive to the needs of the community.**
- 3. Describe any special considerations that will impact your program (e.g. conscripted students, financial constraints, availability of medical experiences, etc.)**
- 4. Identify the areas of anticipated strengths and weaknesses in the program.**
- 5. Describe methods planned to remediate any identified weakness.**

In addition to addressing all the program components in the table on pages 19-20 in the self-study, complete records must be maintained documenting problems, successes, administrative actions and program revisions that unfold as the program

progresses. ***In particular, programs that are Nationally Accredited must copy all communications received from or sent to the accrediting entity to the appropriate EMS Regional Office.*** The site visit team at the initial and subsequent site visits will review all files.

The coordinator should develop plans as to how he will document program activities, evaluate staff and substantiate outcomes. During the site visit, the team will ask for such documentation. Examples of such requests are listed in the table that follows on pages 22-23.

Self-Study Considerations to be documented at Site Visit

A. Program/Course Policies & Procedures

1. During the site visit, provide evidence that procedures are reviewed periodically and revised as appropriate.

B. Instructor Selection & Evaluation

1. During the site visit, provide results of screening procedures used to select instructors, clinical coordinators, preceptors and guest lecturers.
2. During the site visit, provide evidence that instructors, clinical coordinators, preceptors and guest lecturers have been regularly evaluated and that improvement plans have resulted from these evaluations.

C. Clinical Experience

1. During the site visit, describe specific examples of how the overall effectiveness of the clinical rotations have been evaluated and improved.
2. During the site visit, provide a clinical internship schedule that is being or was used for an actual course.
3. During the site visit, provide evaluations of program clinical facilities as well as evaluations of the clinical coordinator *that were completed by students*.

D. Ambulance Internship Experience

1. During the site visit, describe specific

D. Ambulance Internship Experience (continued):

Examples of how the overall effectiveness of the ambulance internship has been evaluated and improved.

2. During the site visit, provide an ambulance internship schedule that is being used or was used for a course.
3. During the site visit, provide ambulance internship facility and preceptor evaluations *that were completed by students*.

E. Equipment

1. During the site visit, have *all* equipment and supplies ready and available for inspection.

F. Classroom and Facilities

1. During the site visit, provide evidence that students and instructors, guest lecturers and other program personnel have a continuing opportunity to evaluate program facilities.
2. During the site visit, describe improvements made to facilities due to student, instructor, clinical coordinator, preceptor or previous site visit recommendations.

G. Student Evaluations

1. During the site visit, provide evidence that students have been given adequate notice of their progress and opportunity to improve.

Self-Study Considerations to be documented at Site Visit (continued)

G. Student Evaluations (continued)

2 During the site visit, provide student performance evaluations from skills lab, clinical and ambulance internships. Also provide written exams and skills evaluation forms.

3. During the site visit, provide evidence that students who have performed below standard during clinical or ambulance internships received counseling and remediation.

H. Student Selection

1. During the site visit, show evidence that student-screening criteria have been followed during the screening process.

2. During the site visit, show records indicating how appeals have been managed.

I. Class Scheduling

1. During the site visit, provide copies of the most current class schedules that have been used for the program's courses.

J. Medical Director Involvement

1. During the site visit, provide records of the course medical director's input into course content, test review and clinical and ambulance internship effectiveness.

2. During the site visit, provide copies

J. Medical Director Involvement (continued)

of Medical Director's contract or letter of agreement upon request.

K. Program/Course Records

1. During the site visit, provide random course and student records requested by the site visit team for review. Records requested could be those such as:

- Written exam results,**
- State skills score sheets or approved course criteria and skills sheets,**
- Clinical completion records,**
- Internship completion records,**
- Documentation of remediation,**
- Student evaluation of instructor and preceptors, and**
- Documentation of regular participation in area coordinator council.**

Note: Other records may also be requested. All records must be open to the site review team.

L. Overall Program Evaluation

1. During the site visit, provide evidence such as employer surveys, graduate surveys and student evaluations that show progressive program evaluation.

2. During the site visit, provide documentation of advisory committee activity and coordinator council participation.

The Site Visit

Following completion of the first course, programs that continue to conduct training courses will be site visited. The regional office shall notify the program in writing at least 90 days in advance of the proposed visit. The program and regional staff shall agree upon an appropriate date for the site visit. However, the program will not be allowed to delay the site visit more than 90 days beyond the date proposed by the Department. In the event that a site visit is delayed more than 90 days, no future courses will be allowed to begin until such time as a successful site visit has been completed. A delay that stretches beyond 180 days after the date proposed by the Department for a site visit shall be cause for suspension of the provisional approval of the program.

A fee of \$75.00 shall be collected for a basic site visit and \$200.00 shall be collected for an advanced site visit. The site visit fee is due when agreement on the date of the visit is reached. Provisionally approved programs that complete a successful site visit will become approved programs for four (4) years from the date of approval.

Typical Schedule for the Site Visit Evaluation

A thorough and accurate evaluation of an EMS education program **should** expose the evaluators to **all** components of the educational program (didactic and clinical) and provide the evaluators with opportunities to meet and discuss the program with its administrative staff. The team will want to meet and talk with the program director, the coordinator, instructors, the clinical coordinator, guest lecturers, preceptors, clinical affiliate representatives, past and present students and the medical director.

The full exposure of the program to the site visit evaluation team as described above provides the evaluators with an awareness of both the objective and subjective components of the total educational experience afforded students. The program director or the course coordinator establishes the actual schedule. It may vary to accommodate the program and its personnel, **but it may not exempt any program personnel from participation and it may not exempt any program component from review.** The schedule should include but is not limited to the following program personnel and types of activities:

- Meeting with program director and/or course coordinator to review the schedule of activities planned for the site visit.
- Convening a general group session with the program coordinator, the clinical coordinator, instructors and preceptors to explain the site visit evaluation process and function and to obtain individual reactions to the program's objectives, philosophies, operational procedures, attrition rates and the success of the program's graduates, etc. from those most directly informed in these matters.
- Interviewing the coordinator and instructors to discuss course content, instructional methods and objectives, testing mechanisms, etc. This discussion will also allow the evaluators to obtain general reactions to the program and to assess the instructors' feelings of involvement in the total program.

- Reviewing of records to assess the manner in which the program maintains records of students' academic work, the manner in which clinical time is evaluated, etc.
- Inspecting equipment, supplies, classrooms, labs and library resources to assure good condition and adequacy.
- Interviewing students and graduates to obtain their reactions to the program and assess the extent to which it prepared them for success. (*This **must** be a private session attended only by the students and the site visit evaluators.*)
- Visiting hospitals and EMS services to assess their general environment as it relates to the provision of adequate internship for EMS students and to insure that preceptors are identified, knowledgeable of clinical objectives and knowledgeable of evaluation procedures for students. (**Note:** If the evaluator is familiar with the clinical and/or internship site, an actual visit to the clinical or field internship site may not be necessary.)
- Preparing an initial report to allow the evaluator to provide a short oral summary of findings, conclusions, comments and concerns regarding the program's compliance with guidelines. Program representatives may respond to this report and allow for clarification to insure that the final report is reflective of the current state of the program. (A final written report will be mailed to the program director within 30 days of the site visit.)

Course Application Procedures

New EMS training program directors and/or coordinators often attempt to address the EMS Course Application out of its proper sequence. The program must be established, the self-study completed, submitted to the regional office, reviewed and approved before the first course approval application is submitted for consideration. The appropriate fee must accompany all course applications and course notifications

All fees are due upon receipt of service or submission of an application whichever is applicable. Starting a class without paying the fee is a violation of state law and may result in action against the coordinator.

Volunteer programs that provide classes at no charge to the student and operate on a non-profit basis are exempt from course application and course notification fees. The non-profit status of the program should be fully documented and maintained. Switching to a for-profit status without first notifying the department will result in administrative action.

Course Approval for Provisional & Approved Programs

Provisional programs are those that have completed a self-study and had it successfully reviewed by the Department. Approved Programs are those that have completed a formal site visit. Both of these types of programs follow the same procedure in applying for course approvals:

- Complete the course approval application and attach a course schedule along with other documentation requested in the application. Course applications **must** arrive in the appropriate Regional Office at least 30 days prior to the proposed first day of class.
- Receive approval with assigned course number or a denial detailing specific reasons.
- If denied, make required changes and resubmit course application if desired. When an application is denied, the proposed first day of class **must** be postponed until such time as the resubmitted application is approved.

Course Approval or Notification for Accredited Programs

Accredited programs are those that have been site visited and approved by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Such programs **may** be exempted from many of the requirements for “Provisional” or “Approved” programs. Exemptions shall depend upon the program’s demonstrated ability to meet the requirements of Rule §157.32 and carrying out the requirements set forth in this manual in a professional and ethical manner benefiting program staff and program clients.

Accredited programs **must** submit the following items to the appropriate Regional Office:

1. A copy of the self-study for accreditation.
2. A copy of the formal accreditation approval.
3. Copies of updates submitted as well as any correspondence between the program and the accrediting agency.

One of the exemptions that may apply to accredited schools concerns the course approval application. Accredited programs that have demonstrated their ability and willingness to routinely submit properly completed and timely course applications and abide by the requirements of the EMS Rules concerning education and the requirements detailed within this manual will be allowed to submit course notifications in lieu of the course approval application. Generally, no attachments are required to be submitted with the course notification. Course notifications should be received at the regional office 30 days prior to the first day of class. They **must** arrive in the appropriate Regional Office prior to the first day of class. Repeated failure to meet this deadline or failure to keep the appropriate regional office informed of significant changes or events within the program will result in the program’s forfeiture of exemptions granted to accredited programs. A copy of the Course Notification Form can be found in **Appendix H**.

Multiple Site Programs

Once a self-study is approved, courses may be submitted for approval under that program until the approval expires or is rescinded so long as the course is being conducted within the confines of the program components identified and described in the self-study. However, if the course coordinator wishes to conduct a course outside the confines of the components identified and described in the self-study, the self-study must either be amended or a new self-study must be submitted for approval. Examples of this type of situation are presented for clarification as follows:

Example One: The coordinator submits a self-study for a program designed to provide EMT training in Dallas using Dallas clinical sites and internship sites. He then decides to expand into the Houston area. A new self-study setting up a Houston program using Houston clinical sites and internship sites will be required.

Example Two: The coordinator submits a self-study for a program in Houston using Houston clinical sites and Houston internship sites. She is asked to conduct a course in Pasadena using her regular staff which will use the Houston clinical sites and internships but meet in a classroom in Pasadena which was not identified in the self-study for the program. She must amend the self-study to identify the Pasadena classroom and make it available for inspection by a regional evaluator before the course can be approved.

A coordinator who has questions about whether a self-study should be amended or a new one submitted should contact the appropriate Regional Office for a dvice.

In no case shall a coordinator conduct the first meeting of ANY course prior to having a valid course approval number in his or her possession.

Doing so may subject the coordinator to significant penalties.

Resource Information

<p>Public Health Region 1 Texas Department of Health - EMS WTAMU Box 60968 Station Canyon, TX 79016-0968 (806) 655-7151 Fax (806) 655-7159 terry.bavousett@tdh.state.tx.us http://www.r01.tdh.state.tx.us/ems/emshome.htm</p>	<p>PHR-2/3 Sub Office 4309 Jacksboro Hwy, Suite 101 Wichita Falls, TX 76302 (940) 767-8593 Fax (940) 767-2374 jbradshaw@fswff1d.dsh.state.tx.us</p>
<p>PHR-1 Sub Office Texas Department of Health - EMS 1109 Kemper Lubbock, TX 79403 (806) 744-3577 Fax (806) 747-0243 denny.martin@tdh.state.tx.us</p>	<p>Public Health Region 2/3 Texas Department of Health - EMS 1301 S. Bowen Rd., Suite 200 Arlington, TX 76013 (817) 264-4720 Fax (817) 264-4725 kevin.veal@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r2&3home.htm</p>
<p>PHR-2/3 Sub Office Texas Department of Health - EMS 1290 S. Willis, Suite 100 Abilene, TX 79605 (915) 690-4410 Fax (915) 695-8363 andrew.cargile@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r2&3home.htm</p>	<p>Public Health Region 4/5 North Texas Department of Health - EMS 1517 West Front Street Tyler, TX 75702-7854 (903) 533-5370 Fax (903) 533-5394 brett.hart@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r4&5home.htm</p>
<p>Public Health Region 6/5 South Texas Department of Health - EMS 5425 Polk Ave, Suite J Houston, TX 77023-1497 (713) 767-3333 Fax (713) 767-3330 wayne.morris@tdh.state.tx.us http://www.r06.tdh.state.tx.us/ems/r6home.htm</p>	<p>Public Health Region 11 Texas Department of Health - EMS 601 W. Sesame Dr. Harlingen, TX 78550 (956) 423-0130 Fax (956) 444-3299 noemi.sanchez@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r11home.htm</p>

<p>Public Health Region 7 2408 South 37th Street Temple, TX 76504 (254) 778-6744 (254) 778-4066 rod.dennison@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r7home.htm</p>	<p>PHR-11 Sub Office 1233 Agnes Corpus Christi, TX 78401 (361) 888-7762 ext 281 Fax (361) 888-7766 rothy.Moseley@tdh.state.tx.us</p>
<p>Public Health Region 8 Texas Department of Health - EMS 1021 Garner Field Rd. Uvalde, TX 78801 (830) 278-7173 Fax (830) 278-7170 joyce.jaeggli@tdh.state.tx.us http://www.r08.tdh.state.tx.us/r8home.html</p>	<p>Bureau of Emergency Management Texas Department of Health 1100 W. 49th Street Austin, TX 78756-3199 (512) 834-6740 Fax (512) 834-6736 http://www.tdh.state.tx.us/hcqs/ems/emshome.htm</p>
<p>Public Health Region 9 Texas Department of Health - EMS 2301 N. Big Spring, Suite 300 Midland, TX 79705-7649 (915) 571-4105 Fax (915) 684-3932 leland.hart@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r910home.htm</p>	<p>Committee on Accreditation of Educational Programs for the EMS Professions 1248 Harwood Road Bedford, TX 76021-4244 (817) 354-8519 richwalker@coarc.com</p>
<p>Public Health Region 10 Texas Department of Health - EMS PO Box 9428 El Paso, TX 79995-9428 (915) 834-7707 Fax (915) 834-7800 anthony.viscon@tdh.state.tx.us http://www.tdh.state.tx.us/hcqs/ems/r910home.htm</p>	<p>DOT National Standard Curriculum Association for Medical Emergency Information, Inc. 21155 Woodfield Road Gaithersburg, MD 20882 (301) 330-3366 Fax (301) 869-5636</p>

•

Continuing Education

Continuing Education is not a part of the initial EMS training and education process. By definition, it is concerned with the further education and skill enhancement of those who have already completed the initial training process. However, continuing education is often a service initial training programs are called upon to provide and it is a vital component of the EMS System. Therefore, this chapter is included in this manual to guide those who are involved in the delivery of continuing education activities.

Perhaps no issue in EMS has brought about more emotional controversy than continuing education. Everyone has an idea about how it *should* be done, and almost no one really wants to do it at all. In the form in which it has existed in EMS over the last few years, continuing education has been widely misused, confused and abused. That is unfortunate, for EMS continuing education is every bit as important as initial training. For EMS providers, continuing education should consume much more of their interests, time and other resources than does initial training.

Types of Continuing Education

To encourage continuing education, EMS Rule §157.38 provides several alternative means for continuing education and quality improvement to EMS personnel. Some of the anticipated options are as follows:

1. Department-approved continuing education programs endorsed by national and state accrediting organizations.
2. Ongoing continuing education programs provided by department-approved EMS initial training programs, licensed EMS providers, registered first responder organizations, hospitals accredited by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) or accredited educational institutions that have met course approval criteria.
3. National or state standardized courses and conferences.
4. Directed activities, single or multiple offering.
5. Independent study such as continuing education articles in professional journals, ongoing serial productions or interactive computer program activities.
6. Authorship of EMS publications or periodicals.

7. Academic courses reviewed and approved by the department in areas of study that directly relate to EMS knowledge objectives.
8. EMS Instructor activities.

Contact Hours and Content Areas

A certificate holder who chooses to renew via general continuing education should complete the required number of contact hours per category for the level of certificate held. A contact hour is defined as 50 minutes of instruction. Content hours required for each level of certification are set forth in Rule 157.38 and are as follows:

<i>Content Areas</i>	<i>ECA</i>	<i>EMT</i>	<i>EMT-I</i>	<i>EMT-P</i>
<i>Preparatory</i>	3	6	9	12
<i>Airway Management /Ventilation</i>	3	6	9	12
<i>Patient Assessment</i>	2	4	6	8
<i>Trauma</i>	3	6	9	12
<i>Medical</i>	9	18	27	36
<i>Special Considerations</i>	3	6	9	12
<i>Clinically Related Operations</i>	1	2	3	4
<i>Minimum Hours in Content Areas</i>	24	48	72	96
<i>Additional Hours in Any Approved Category</i>	12	24	36	48
<i>Total Hours Required for Re-certification Eligibility</i>	36	72	108	144

In order for any activity to be approved, the time period in which the activity occurred must correspond to the individual's certification period. For example, academic courses taken in 2001 would not be approved as continuing education hours for a certification period that began in 2002. If an individual is participating in a graded activity, continuing education hours will be awarded only if the individual passes according to an approved grading system.

Continuing Education Approval:

In order to receive credit for continuing education hours, the Department must approve the program or process through which the hours are offered. In many cases prior approval must be obtained. In other cases approval can be sought after the process is complete, but applicants who request approval after competing a process should be prepared for the possibility that approval will not be granted.

In many instances the Department will approve National Standard Courses for EMS continuing education and establish the number of hours approved for each course. An example of such would be approval of the continuing education process for the National Registry of EMT's. Such approval is statewide and will be documented on the Bureau of Emergency Management Web Page.

Ongoing Continuing Education Programs:

- Program is generally a two-year program designed to meet **all** the continuing education requirements of the certificants participating in it and require prior approval from the appropriate EMS regional office. If the program provider plans to offer the ongoing activity across regional lines it should be stated in the application.
- Program may be conducted by department-approved EMS initial training programs, licensed EMS providers, registered first responders, accredited hospitals and accredited institutions for higher education.
- Each approved ongoing activity will be assigned an approval number by the department. Participants should require the program to provide that number and verify it with the department if they have any reason to question the status of the program.

National and state EMS standardized courses and conferences:

- Will be approved for EMS continuing education on a statewide basis
- Not necessary to get prior approval for a national or state conference
- Portions of conferences geared to other allied health professionals are acceptable (to see a list of approved agencies go to the Bureau's Web Page at: <http://www.tdh.state.tx.us/hcqs/ems/sotherce.htm>)

- Examples of standardized courses:

CPR	PEPP ALS
ACLS	PEPP BLS
BTLS/PHTLS	ABLS
Pediatric BTLS	PHBLS
Vehicle Access BTLS	APCO/EMD
PALS/APLS	FARMEDIC
Wilderness Rescue	CONTOMS
NALS/NRP	Card course instructor class
Swiftwater Rescue Tech I & II	
Aviation Aquatic Workshop	

Certificants should maintain documentation of completion in their records for audit purposes and provide enough information to document the event and his/her attendance. Without prior approval there can be no guarantee as to the number of hours, if any, that will be approved.

Directed Activities:

- Directed Activities are generally one hour to one or two day offerings that are designed to give the certificants only one (1) to eight (8) continuing education hours. An example of such an activity would be a daylong HAZMAT simulation.
- May be single or multiple continuing education offerings.
- Must be approved in advance.
- An applicant may seek regional or statewide approval by submitting an application to his/her regional office. Such an activity may be sponsored by anyone who has the credentials to support them in the undertaking. An application may be obtained from the regional EMS office.
- Each approved directed activity is assigned an approval number by the department.

Independent Studies:

- An independent study is one where the learner takes the initiative and responsibility for assessing, planning, implementing and evaluating the activity.
- The Department must approve these offerings in advance. Approval will be issued on a statewide basis.
- All such courses are assigned an approval number. Get that approval number from the vendor and then confirm it with the Department.

Authorship of EMS related articles need not be approved in advance, but the Department may or may not award continuing education hours for such activity when advanced approval is not obtained. The applicant may submit the proposal to the nearest regional office, but the Bureau will generally approve these activities.

Academic Courses which relate to EMS and which are completed within the certification period are generally approved for a number of EMS continuing education hours by submitting required documentation to the appropriate Regional Office. Prior approval is not necessary. The certificants must submit a transcript that indicates a passing score and a course summary for each course. A general idea of the number of hours that will be awarded can be gained by checking the EMS Web Site at:

<http://www.tdh.state.tx.us/hcqs/ems/academce.htm>

EMS Instruction in approved initial or continuing education offerings may be documented for EMS continuing education hours. Approval will be based on actual time spent in instruction and application may be made through the appropriate Regional Office.

Record Keeping

No matter what option a certificant chooses for continuing education, record keeping **is always** the responsibility of the certificant. Many entities will keep records, but their willingness to do so does **not** exclude the certificant from his/her responsibility to maintain documentation. Documentation of all continuing education activity must be maintained 5 years for audit purposes. If it is not maintained or if it cannot be surrendered immediately upon request in the case of an audit, it **will not** be honored and serious consequences to certification status may result.

Records are randomly audited. In addition, records are audited as a result of complaints or suspected fraudulent activity. If a certificant's records are requested for audit, they must be surrendered immediately. Failure to do so will result in forfeiture of all undocumented continuing education hours.

Re-certification and Continuing Education

From the moment a certificant graduates from his/her initial training program, continuing education and quality improvement evaluation should begin. Its role should be to ascertain the scope of the medic's ability before he/she is assigned to the streets. Its role should further be to constantly involve the medic in retaining skills proficiency and knowledge while helping him or her to learn new skills and practice and enhance techniques. Only as an after thought should continuing education be thought of as a method for re-certification.

There are five (5) methods of re-certification set forth by Rule §157.34. To re-certify via continuing education, the certificant must accrue the number of hours set forth in Rule §157.34 for his/her level of certification. See the table on page 33 of this manual for a listing of the required hours.

No more than one year prior to the end of the certification period, the applicant renewing via continuing education should submit the application and fees for re-certification. Documentation of the continuing education hours acquired does **not** need to be submitted. However, a random sampling will be audited each month. Those applicants chosen for audit must submit documentation supporting at least the number of continuing education hours they attested to on the re-certification application.

Other Re-certification Options

The other four (4) options for re-certification are each to a greater or lesser degree akin to continuing education, but they are not a part of the formal continuing education process.

The first of these is completion of the *Written Re-certification Examination*. The certificant who exercises this option must pass the state written re-certification examination that is designed to measure ongoing competencies and current EMS practices. The word "current" should be noted. One who has not been part of an effective evaluation and improvement program may not be conversant with current practices. Two retests are allowed. Each must be preceded by a retest application and fee.

The next option is *National Registry*. An applicant who is Nationally Registered at the time he/she submits a re-certification application shall be re-certified. The third option is the *Re-Certification Course*. The course must meet the following content hour requirements:

<i>Content Areas</i>	<i>ECA Hours</i>	<i>EMT Hours</i>	<i>EMT-I Hours</i>	<i>EMT-P Hours</i>
<i>Preparatory</i>	3	6	9	12
<i>Airway Management /Ventilation</i>	3	6	9	12
<i>Patient Assessment</i>	2	4	6	8
<i>Trauma</i>	3	6	9	12
<i>Medical</i>	9	18	27	36
<i>Special Considerations</i>	3	6	9	12
<i>Clinically Related Operations</i>	1	2	3	4
<i>Minimum Hours in Content Areas</i>	24	48	72	96

In addition, the course must meet requirements and standards as follows:

- Must be conducted by a Department approved initial EMS education program,
- Must consist of formal, classroom-presented live presentations,
- May be conducted over the entire four year certification period but should be completed within the fourth year of an individual's certification period and prior to the expiration date of the individual's most recent certification,
- Must be submitted at least 30 days prior to the proposed first day of class and approved by the appropriate Regional Office prior to the start of the course,
- Must include a component to verify competency of all EMS skills appropriate to the certification level,
- Must meet instructor to student ratios, equipment requirements and facility standards that pertain to initial training programs.

Sample re-certification courses may be found in Appendix K.

The final option for re-certification is via a licensed provider's Comprehensive Clinical Management Program (CCMP) that has been approved by the

Department. This option is mentioned in Rule §157.34, but at this writing it is only in the developmental stages.

Four of the options allow for some flexibility by the certificant. If, for instance, one elects to re-certify by the C.E. method but finds he or she isn't going to have accumulated sufficient contact hours by the end of the certification period, the certificant may elect to apply for National Registry, enroll in a Re-certification Course or simply sit for the written Re-certification Examination. This flexibility, however, does not extend to the individual who elects to sit for the written Re-certification Examination. If one chooses to attempt re-certification by examination and is unsuccessful, then he or she is prohibited from attempting another option.

Choosing a Re-certification Option

A final word about choosing options is necessary to prevent possible misunderstandings between certificants, EMS administrators and medical directors. The choice of re-certification options belongs to the individual certificant. He or she may choose any option for which eligibility can be established under Chapter 157 EMS Rules. However, the right of the certificant to choose an option for re-certification does **not** negate the right of the EMS administrator or the medical director respectively to manage the service and decide who will receive medical direction. The department maintains the position that one's certification is a title one has earned through meeting the minimum requirements for that level of certification. Re-certification is, likewise, merely the individual meeting the legal requirements to maintain that title. The EMS administrator and the firm's medical director are fully empowered, and encouraged, by the department to institute a mechanism of credentialing field staff to a higher level of competence than the minimum standards set forth by rule. In other words, an individual may be certified as a paramedic, and has the right to be called a paramedic, but that individual does **not** have the right to practice as a paramedic until a physician medical director has determined that he or she is competent enough to have been delegated that practice. Therefore, EMS administrators and medical directors may require certificants to demonstrate proficiency through any number of ways other than the re-certification process that will satisfy their own expectations for their own staff.

Appendices

Within this section are various documents and forms that the program director and the course coordinator may find helpful in planning and carrying out the objectives of the training program. Among the items are:

- Sample Clinical Internship Objectives
- Clinical & Field Internship Documentation Forms
- Sample Field Internship Objectives
- EMS Training Course Equipment Lists
- Functional EMS Position Description
- Request for Disability Accommodation Form
- Section 773.009 – Limitation of Civil Liability
- Medical Director Information Form
- EMS Course Approval/notification Form
- Program Application

Sample Clinical Internship Objectives

Performance of skills contained in the clinical objectives shall be based on performance criteria established by standard medical practice unless otherwise defined by the course coordinator. The course coordinator shall make a form available to each student, preceptor and clinical nurse identifying the applicable objectives for each clinical area in which students will serve. Sample forms are located within this appendix.

EMT-Basic Internship Objectives

***Because of patient availability, it is possible that all objectives may not be met and that all skills may not be performed. Nonetheless, as many skills as possible should be observed and practiced by the student.

- 1. Tour and receive orientation to the assigned area.**
- 2. Perform equipment/vehicle checks and any other preparatory tasks.**
- 3. Utilize “Universal Precautions” of infection control.**
- 4. Perform a patient assessment:**
 - a) Primary survey
 - b) Secondary survey
 - c) Vital signs, including lung sounds
 - d) History
- 5. Assist and observe the triage of patients.**
- 6. Perform airway management:**
 - a) Manual techniques
 - b) Oropharyngeal airways
 - c) Nasopharyngeal airways
 - d) Oropharyngeal suctioning
- 7. Perform respiratory support:**
 - a) Oxygen administration
 - b) Bag-valve mask ventilation
 - c) Demand valve resuscitators
- 8. Perform CPR:**
 - a) Observe and assist in cardiac resuscitation
 - b) Observe and assist in trauma resuscitation
 - c) Observe and assist in the use of the Automatic External Defibrillator (AED)
- 9. Recognize and evaluate mechanisms of injury.**
- 10. Assist in the treatment of trauma cases:**
 - a) Perform bleeding control
 - b) Dress and bandage wounds
 - c) Perform musculoskeletal immobilization
 - d) Apply traction splint
 - e) Assist with spinal immobilization
 - f) Penetrating wounds of the chest and abdomen
 - g) Apply Pneumatic Anti-shock Garment
 - h) Other trauma cases as available
- 11. Assist in the treatment of medical cases:**
 - a) Chest pain
 - i) Assist in the administration of nitroglycerine
 - b) Congestive heart failure
 - c) Chronic obstructive pulmonary disease
 - d) Obstructed airway
 - e) Asthma attack

- i.) Assist in the administration of the metered dose inhaler
 - ii.) Assist in the administration of nebulizer treatment
 - f) Diabetic emergencies
 - i.) Assist in the use of the glucometer
 - ii.) Assist in the administration of an instant glucose product
 - g) Seizures
 - h) Coma
 - i) Overdose (alcohol or drug abuse)
 - i.) Assist in the administration of Activated Charcoal
 - j) Other medical cases as available
 - k) Anaphylactic Shock
 - i.) Assist in the administration of the epinephrine auto-injector
- 12. Assist or observe the care of behavioral emergencies:
 - a) Suicidal behavior
 - b) Hostile/violent behavior
 - c) Acute grief or depression
 - d) Paranoia
 - e) Hysterical conversion
 - f) Acute anxiety/agitation
 - g) Schizophrenia
 - h) Anger
 - i) Confusion
 - j) Fear
 - k) Hyperactivity
 - l) Alcohol and drug abuse
 - m) Other behavioral cases which are safely available
- 13. Assist in the care of geriatric patients:
 - a) Senility
 - b) Alzheimer's disease
 - c) Osteoporosis
 - d) Rheumatoid arthritis
 - e) Immobility
 - f) Other geriatric cases as available
- 14. Assist in the care of pediatric patients:
 - a) Signs and symptoms of pediatric illness
 - b) Febrile seizures
 - c) Restraint procedures
 - d) Psychological states of age progression
 - e) Note vital sign differences
 - f) Parental care
 - g) Poisonings
 - h) Other pediatric cases as available
- 15. Assist or observe the care of obstetric patients:
 - a) Identify the three stages of labor
 - b) Cephalic delivery

- c) **Clamping and cutting of the umbilical cord**
 - d) **Complications of delivery**
 - e) **Observe a caesarian section**
 - f) **Note medications given to the mother**
 - g) **Inspect the delivered placenta and umbilical cord**
 - h) **Postpartum hemorrhage control**
 - i) **Newborn care**
 - j) **APGAR scoring**
 - k) **Premature infant care**
 - l) **Fetal monitoring**
 - m) **Other obstetric cases as available**
16. **Observe the management of cases with legal implications or which require evidence preservation:**
 - a) **Sexual assault/rape**
 - d) **Child/elderly abuse**
 - e) **Shootings/stabbing**
 - f) **Animal bites**
 - g) **Other cases as available**
 17. **Observe sterile techniques and assist as directed.**
 18. **Assist in lifting, moving and patient transfers.**
 19. **Perform patient access, packaging and extrication.**
 20. **Assist in any restocking, cleaning or other duties as assigned in the clinical/field facility.**
 21. **Observe diagnostic procedures/tests and review lab results.**
 22. **Review charts for clinical findings, diagnosis and treatment plans.**
 23. **Monitor and record radio and oral communication of patient information.**
 24. **Document, for student records, patient and/or incident information.**
 25. **Assist or observe in any procedure authorized by the attending physician and/or preceptor that will increase the understanding of anatomy and physiology of illness or injury.**

EMT-Intermediate Internship Objectives

*** Because of patient availability, it is possible that all objectives may not be met and that all skills may not be performed. Nonetheless, as many skills as possible should be observed and practiced by the student.

1. **All internship objectives for the EMT-Basic.**
2. **Perform an advanced patient assessment using the following:**
 - a) **Auscultation**
 - b) **Inspection**
 - c) **Percussion**
 - d) **Palpation**
3. **Perform or observe advanced airway management:**
 - a) **Esophageal obturator**
 - b) **Endotracheal intubation**
 - c) **Nasotracheal intubation**
 - d) **Endotracheal suctioning with sterile technique**
 - e) **Tracheotomy care**
 - f) **Chest decompression**
 - g) **Cricothyrotomy**
 - h) **Transtacheal jet insufflation**
 - i) **Laryngeal Mask Airway**
 - j) **Combitube**
4. **Perform advanced respiratory support:**
 - a) **Note arterial blood gas values and changes relative to oxygen therapy**
 - b) **Ventilate intubated patients with the bag-valve mask unit**
 - c) **Note and monitor lung sounds (rales, rhonchi, wheezes, and diminished lung sounds)**
5. **Assist in the advanced treatment of trauma cases:**
 - a) **IV fluid challenges or fluid replacement**
 - b) **Apply MAST, when indicated, to stabilize pelvic and lower extremity fractures**
6. **Assist in the advanced treatment of medical cases:**
 - a) **IV care**
 - b) **Assist with medication administration**
7. **Assist and observe IV fluid administration:**
 - a) **Fluid type used for patient's condition**
 - b) **Rate of administration**
 - c) **Type of IV tubing**
 - d) **Drip rate calculation**
 - e) **IV set up procedures**
 - f) **Note IV sites used**
 - g) **Observe intraosseous infusions**
8. **Observe blood or blood product transfusions:**
 - a) **Blood type and cross match procedures**

- b) **Note product type used for patient condition**
- c) **Observe for signs or symptoms of hemolytic reaction**
- 9. **Perform IV insertions under supervision of the clinical instructor:**
 - a) **External jugulars**
 - b) **Establish with a butterfly catheter**
 - c) **Establish with an over-the-needle catheter**
 - d) **Set the prescribed drip rate**
 - e) **Peripheral sites**
 - f) **Intraosseous cannulation**
- 10. **Draw blood samples: (Not to include ABG's, blood alcohol, or blood for highly sophisticated laboratory analysis)**
 - a) **Students are permitted two attempts per patient**
 - b) **Demonstrate aseptic technique**
 - c) **Use a vacutainer**
 - d) **Use a needle and syringe**
 - e) **Use an over-the-needle catheter (agiocath) and syringe**
 - f) **Use a scalp vein needle (butterfly) and syringe**
- 11. **Document advanced procedures appropriately:**
 - a) **Non-visualized airway tube placement**
 - b) **Endotracheal intubation**
 - c) **IV insertions**
 - d) **MAST application**
- 12. **Assist or observe in any procedure authorized by the attending physician and/or preceptor that will increase the understanding of anatomy and physiology of illness or injury.**

EMT-Paramedic Internship Objectives

*** Because of patient availability, it is possible that all objectives may not be met and that all skills may not be performed. Nonetheless, as many skills as possible should be observed and practiced by the student.

All internship objectives for EMT-Basic and EMT-Intermediate.

- 1. Assist in ACLS resuscitations.**
- 2. Assist in BTLIS resuscitations.**
- 3. Perform and assist in cardiac monitoring:**
 - a) Apply monitor electrodes**
 - b) Monitor cardiograph**
 - c) Interpret monitor readout strip (Lead II)**
 - d) Identify and diagnose EKG rhythms:**
 - 1) Normal Sinus rhythm**
 - 2) Sinus Bradycardia**
 - 3) Sinus Tachycardia**
 - 4) Sinus Rhythm with First Degree AV Block**
 - 5) Sinus Rhythm with Second Degree AV Block (Mobitz Type I or Wenckebach)**
 - 6) Sinus Rhythm with Second Degree AV Block (Mobitz Type II)**
 - 7) Sinus Rhythm with Third Degree AV Block**
 - 8) Multifocal Atrial Tachycardia (Frequent Premature Atrial Contractions)**
 - 9) Atrial Flutter**
 - 10) Atrial Fibrillation**
 - 11) Junctional Rhythm**
 - 12) Ventricular Bigeminy**
 - 13) Multifocal PVC**
 - 14) Sinus Rhythm with Paroxysmal Ventricular Tachycardia**
 - 15) Ventricular Tachycardia**
 - 16) Artifact**
 - 17) Ventricular Fibrillation**
 - 18) Asystole**
- 4. Prepare and administer medications under the clinical instructor's supervision: (Only when the student has demonstrated knowledge of actions, indications, contraindications, and side effects of the medication)**
 - a) Oral medications**
 - b) Sublingual medications**
 - c) Rectal medications**
 - d) Subcutaneous injections**
 - e) Intramuscular injections**
 - f) Intravascular injections**
 - g) Inhalation**
 - h) Transdermal**
 - i) Transtracheal**

- j) Intraosseus**
- 5. Perform or observe defibrillation/cardioversion/pacing.**
- 6. Perform or observe placement of the leads for 12 lead ECG monitoring.**
- 7. Perform or observe placement of nasogastric tube.**
- 8. Document advanced procedure appropriately.**
 - a) EKG Monitoring**
 - b) Medication Administration**

Assist or observe in any procedure authorized by the attending physician and/or preceptor that will increase the understanding of anatomy and physiology of illness or injury.

Thanks to the Southeast Emergency Medical Service Council for allowing the use of these objectives in this manual.

Appendix

B

Clinical and Field Internship Forms

Clinical and field internships shall be documented for each student using forms such as those illustrated in this appendix.

EMS Internship Documentation Form

Name: _____
Address: _____
School Number: _____
School: _____

Social Security/ID No. _____
Coordinator: _____

Clinical Internship
 Field Internship

Site A: _____
Site B: _____
Site C: _____

EMT EMT-I EMT-P Note: Do not mix Clinical and Field Internships on the same forms.

Clinical Area/Site	Date	Time In	Time Out	Number of Hours	Description of Patient Management	Staff Signature

Total Hours This Sheet _____ ; **Total Hours All Sheets** _____ ; **Coordinator's Signature:** _____

Student Performance Appraisal

Sample Field Internship Objectives

Performance of skills contained in the field internship objectives shall be based on performance criteria established by standard medical practice unless otherwise defined by the course coordinator. The course coordinator shall make a form available to each student and preceptor identifying the applicable objectives for each field internship area in which students will serve.

Sample forms are illustrated in this appendix.

Field Internship Objectives

Performance of skills contained in the field internship objectives shall be based on performance criteria established by standard medical practice unless otherwise defined by the course coordinator. During the field internship, the student must practice under direct supervision of a recognized preceptor and should demonstrate proficiency for each of the following skills.

All Levels

- Complete an orientation of expected behavior before, during and after a response with ambulance crew.
- Locate, inspect and prepare each piece of equipment for use on the ambulance.
 - Locate and operate radio equipment.
 - Practice loading and unloading the ambulance stretcher, with and without a load.
- Locate and become familiar with emergency equipment such as flares and fire extinguishers.
- Perform patient assessment including developing relevant medical history and conducting a physical examination. The assessments should include, at a minimum, assessments on medical patients, unconscious patients, trauma patients and pediatric patients.
- Assist and review the treatment of trauma cases and medical emergencies.
 - Assist in triaging patients.
 - Assist in hemorrhage control and splinting.
 - Assist in cases of cardiac arrest, including the performance of CPR.
 - Assist in basic airway management.
 - Assist in the use of an Automatic External Defibrillator (AED).

EMT and above

- Administration of Epinephrine for use in treatment of allergic reactions.
- Assist in use of Bronchodilator.
- Assist in the management of cardiac arrest through the use of an AED.
- Assist in the treatment of shock by applying the PASG.

EMT-I and Paramedic

- Perform peripheral I.V. insertions
- Draw blood samples.
- Perform Endotracheal Intubations.

Paramedic

- Prepare and administer intramuscular, subcutaneous and I.V. medications.
- Record and interpret EKGs.
- Perform Defibrillation and/or Cardioversion.

- Perform a subclavian or internal jugular I.V. insertion. *
 - Perform a cricthyrotomy. *
 - Perform a transtracheal jet insufflation. *
 - Perform a phlebotomy in cases of acute heart failure. *
 - Demonstrate the use of transthoracic pacemaker. *
- * Indicates optional skills that must be specifically approved by the course medical director and addressed in the Clinical Internship Agreement.

EMS Training Course Equipment List

The lists in this appendix represent the ***minimum*** amounts of equipment that should be on hand for each type of course. There should be one item or set for every ten students unless otherwise noted.



ECA Course Minimum Equipment Requirements

Note: At least one set of each of the following should be available for every ten students participating in each course unless otherwise noted. Borrowing equipment is often not in the best interests of the program or the students it serves. Programs which conduct classes on a regular basis should purchase or lease equipment that will be on hand for the duration of the class.

_____ CPR Manikin, infant	_____ Traction splint assembly (half-ring or ratchet-action adjustable splint)
_____ CPR Manikin, child	_____ Triangular bandages (1 doz./10 students)
_____ CPR Manikin, adult	_____ Soft roller bandage (1doz./10 students)
_____ Medical oxygen cylinder (full) with pin indexed yoke	_____ Gauze pads (4" X 4" 100/10 students)
_____ Assorted oxygen delivery devices (masks, cannulas, etc.)	_____ Sphygmomanometer
_____ Oropharyngeal airways (infant, child and adult sizes)	_____ Stethoscope (teaching, dual earpiece)
_____ Bag-valve mask unit (infant, child and adult sizes)	_____ Pillow
_____ Suction device (O ² , battery or hand powered)	_____ Blanket
_____ Suction catheters (both rigid and flexible in assorted sizes)	_____ Head immobilization device
_____ Backboard (at least 6' in length)	_____ Stethoscopes (nursing, 3/10 students)
_____ Cervical immobilization devices (short board, KED)	_____ Sterile dressings
_____ Protective gloves	_____ Pocket masks with one-way valve (3/10 students)
_____ Protective eyewear	_____ Occlusive dressing (1 doz./10 students)
_____ Extrinsication collars (small, medium and large)	_____ Automatic External Defibrillator or AED Trainer
_____ Webbed straps (for backboard, 3/10 students)	
_____ Splinting devices	



EMT-Basic Course Equipment List

Note: All equipment required for the ECA course is required for an EMT course. In addition the following items must be present in a ratio of 1 set of equipment for every 10 students unless otherwise noted. Borrowing equipment is often not in the best interests of the program or the students it serves. Programs which conduct classes on a regular basis should purchase or lease equipment that will be on hand for the duration of the class.

<input type="checkbox"/> Alcohol Preps	<input type="checkbox"/> Injection Pad
<input type="checkbox"/> Bronchodilator	<input type="checkbox"/> Nebulizer Administration Device (small volume)
<input type="checkbox"/> Drug Box with metered dose inhaler, spacer and sample or simulation of Bronchodilator packaged for use in a nebulizer	<input type="checkbox"/> Pneumatic Anti-Shock Garment
<input type="checkbox"/> Epinephrine Auto-Injector	<input type="checkbox"/> Sharps Container



EMT-I Course Equipment List

Note: All items required for the ECA and EMT courses are required in addition to at least one set for every 10 students of each of the following items unless otherwise noted.

<p>_____ Intubation manikin (1 adult, 1 pedi)</p> <p>_____ Needles (vari ous gauges)</p> <p>_____ Venous tourniquet</p> <p>_____ Dextrose 50% injectable</p> <p>_____ Tape</p> <p>_____ Laryngoscope handles (2)</p> <p>_____ Laryngoscope Blades (straight; adult and pedi)</p> <p>_____ Laryngoscope Blades (curved; adult and pedi)</p> <p>_____ Magill forceps (1 adult and 1 pedi)</p> <p>_____ I.V. tubes (assorted sizes)</p> <p>_____ Tonsil and French-type suction catheter</p> <p>_____ I.V. training arm</p> <p>_____ I.V. arm board (short & long)</p>	<p>_____ Micro I.V. administration set</p> <p>_____ Macro I.V. administration set</p> <p>_____ I.V. catheters (assorted sizes)</p> <p>_____ I.V. butterfly</p> <p>_____ Iodine prep pad</p> <p>_____ Alcohol prep pad</p> <p>_____ Antiseptic ointment</p> <p>_____ Vacutainer tubes</p> <p>_____ Syringes (assorted sizes)</p> <p>_____ Endotracheal tubes (infant, child and adult)</p> <p>_____ Non-Visualized Airway Set</p> <p>_____ Lubricating gel</p> <p>_____ Stylets (endotracheal adult and pedi)</p> <p>_____ Securing devices for ET tubes</p>
---	---



EMT-Paramedic Course Equipment Requirements

Note: All items required for the ECA, EMT and EMT-I courses are required in addition to at least one set for every 10 students of each of the following items unless otherwise noted.

- _____ EKG monitor/defibrillator (D.C. powered, portable)
- _____ Dysrhythmia simulator
- _____ Monitoring electrodes (disposable)
- _____ Electrode gel or pads
- _____ All ACLS, AHA and DOT drugs

Functional Position Description

The functional position description included in this appendix must be provided to each student in an EMS training course. Students who have a disability may not be barred from the course or discriminated against in an illegal manner. Such students should complete a request for disability accommodation. The form for such a request is also included in this appendix.

Functional Position Description

ECA / EMT / EMT-I / EMT-P

Introduction

The following general position description for the ECA, EMT, EMT-I and EMT-P is provided as a guide for advising those interested in understanding the qualifications, competencies and tasks required for emergency medical services certification. It is the ultimate responsibility of an employer to define specific job descriptions within each Emergency Medical Services (EMS) entity.

Qualifications

To qualify for EMS certification or licensure an individual must successfully complete a Texas Department of Health approved course and achieve competency in each of the psychomotor skills. In addition the individual must achieve a passing score on the state written certification or licensure examination.

EMS personnel must be at least 18 years of age. Generally, the knowledge and skills required show the need for a high school education or equivalent. EMS personnel must have the ability to communicate verbally via telephone and radio equipment; ability to lift, carry and balance up to 125 pounds (250 pounds with assistance); ability to interpret written, oral and diagnostic form instructions; ability to use good judgment and remain calm in high-stress situations; ability to work effectively in an environment with loud noises and flashing lights; ability to function efficiently throughout an entire work shift; ability to calculate weight and volume ratios and read small print, both under life threatening time constraints; ability to read and understand English language manuals and road maps; ability to accurately discern street signs and address numbers; ability to interview patient, family members and bystanders; ability to document, in writing, all relevant information in prescribed format in light of legal ramifications of such; ability to converse in English with coworkers and hospital staff as to status of patient. EMS personnel should possess good manual dexterity, with ability to perform all tasks related to highest quality patient care. Ability to bend, stoop and crawl on uneven terrain and ability to withstand varied environmental conditions such as extreme heat, cold and moisture is vital. The ability to work in low light, confined spaces and other dangerous environments is required.

COMPETENCY AREAS

ECA – Emergency Care Attendant

The ECA must demonstrate competency handling emergencies utilizing all Basic Life Support equipment and skills in accordance with all behavioral objectives in the United States Department of Transportation (DOT)/First Responder curriculum and the Federal Emergency Management Administration (FEMA) document entitled “Recognizing and Identifying Hazardous Material,” and to include aids for resuscitation, blood pressure by palpation and auscultation, oral suctioning, spinal immobilization, patient assessment and adult, child and infant CPR. Automated external defibrillation is a required skill.

EMT-Emergency Medical Technician

The EMT must demonstrate competency in handling emergencies utilizing all Basic Life Support equipment and skills in accordance with all behavioral objectives in the DOT/EMT Basic curriculum. The course shall include at least 140 clock hours of classroom, laboratory, clinical and field instruction which shall include supervised experiences in the emergency department and with a licensed EMS provider and other settings as judged appropriate by the Program Director. In addition, the information contained in the FEMA document entitled “Recognizing and Identifying Hazardous Material” shall be part of the course curriculum.

Emergency Medical Technician Intermediate

The minimum curriculum shall include all content required by the portions of the current national paramedic education standards and competencies as defined by the DOT which address the following areas:

- roles and responsibilities of the paramedic;
- well being of the paramedic;
- illness and injury prevention;
- medical/legal issues;
- ethics;
- general principles of pathophysiology;
- pharmacology;
- venous access and medication administration;
- therapeutic communications;
- life span development;
- patient assessment;
- airway management and ventilation, including endotracheal intubation; and
- trauma

The course shall include at least 160 clock hours of classroom, laboratory, clinical and field instruction which shall include supervised experiences in the emergency department and with a licensed EMS provider and other settings as judged appropriate by the Program Director. In addition, the information contained in the FEMA document entitled "Recognizing and Identifying Hazardous Material" shall be part of the course curriculum. Manual external defibrillation is an optional course skill.

Emergency Medical Technician Paramedic

A minimum curriculum shall include all content required by the current national paramedic education standards and competencies as defined by the DOT.

The course shall consist of at least 624 clock hours of classroom, laboratory, clinical and field instruction that shall include supervised experiences in the emergency department and with a licensed EMS provider and other settings as judged appropriate by the Program Director. In addition, the information contained in the FEMA document entitled "Recognizing and Identifying Hazardous Material" shall be part of the course curriculum. Manual external defibrillation is a required skill. Certification as an EMT basic is required as a prerequisite to this course.

Description of Tasks:

Receives call from dispatcher, responds appropriately to emergency calls, reads maps, may drive ambulance to emergency site, uses most expeditious route and observes traffic ordinances and regulations.

Determines nature and extent of illness or injury, takes pulse, blood pressure, visually observes changes in skin color, auscultates breath sounds, makes determination regarding patient status, establishes priority for emergency care, renders appropriate emergency care (based on competency level); may administer intravenous drugs or fluid replacement as directed by physician. May use equipment (based on competency level) such as but not limited to, defibrillator, electrocardiograph, performs endotracheal intubation to open airway and ventilate patient, inflates pneumatic anti-shock garment to improve patient's blood circulation or stabilize injuries.

Assists in lifting, carrying, and transporting patient to ambulance and on to a medical facility. Reassures patients and bystanders, avoids mishandling patient and undue haste, searches for medical identification emblem to aid in care. Extricates patient from entrapment, assesses extent of injury, uses prescribed techniques and appliances, radios dispatcher for additional assistance or services, provides light rescue service if required, provides additional emergency care following established protocols.

Complies with regulations in handling deceased, notifies authorities, arranges for protection of property and evidence at scene. Determines appropriate facility to which patient will be transported, reports nature and extent of injuries or illness to the facility, asks for direction from hospital physician or emergency department. Observes patient in route and administers care as directed by physician or emergency department or according to published protocol. Identifies diagnostic signs that require communication with facility. Moves the patient into the emergency facility from the ambulance. Reports verbally and in writing concerning observations about the patient, patient care at the scene and in route to facility, provides assistance to emergency staff as required.

Maintains familiarity with all specialized equipment. Replaces supplies, sends used supplies for sterilization, checks all equipment for future readiness, maintains ambulance in operable condition, ensures ambulance cleanliness and orderliness of equipment and supplies, decontaminates vehicle interior, determines vehicle readiness by checking oil, gasoline, water in battery and radiator and tire pressure.



Request for Disability Accommodation

Texas Department of Health

Bureau of Emergency Management

If you have a disability requiring appropriate accommodation(s) in taking the state examination, be sure to complete and submit this form along with the application. In addition, please **attach** on letterhead stationary a statement from a qualified professional who is familiar with your disability. This statement must confirm and describe the disability for which you require accommodation. This information will **not** be filed with your application or test results and will be confidential.

Do you have any disability-related needs that we should be made aware of in order to provide reasonable accommodation for the EMS certification/licensure examination? If the answer is "yes," please specify.

Disability: _____

Have you had testing accommodation(s) in your recent academic activities? If the answer is "yes," specify the type of accommodation. Have a professional familiar with your disability complete this form if needed.

Disability	Type of Test Accommodation
_____	_____
_____	_____
_____	_____
_____	_____

Please sign and date this form. Make sure the professional who helps you complete the form and/or supplies the attached statement concerning your disability also signs and dates the form.

Signature (Applicant) Date

Printed Name of Applicant

Signature (Professional) Date

Printed Name of Professional

Limitation of Civil Liability

The limitation of civil liability from Section 773.009 of the Texas Health and Safety Code may be used as an aid in overcoming unfounded fears when negotiating clinical and field internship agreements.

Section 773.009
Texas Health and Safety Code
Limitation of Civil Liability

A person who authorizes, sponsors, supports, finances or supervises the functions of emergency room personnel and emergency medical services personnel is not liable for civil damages for an act or omission connected with training emergency medical services personnel or with services or treatment given to a patient or potential patient by emergency medical services personnel if the training services or treatment is performed in accordance with the standard of ordinary care.



Medical Director Information Form

The medical director information form must be completed and submitted to the appropriate regional office by each EMS medical director associated with an EMS training facility, EMS provider or first responder.



Texas Department of Health EMS Training Program/EMS Provider Medical Director Information Form

Please **print** when filling out the form, and use address where you prefer EMS training program and/or EMS Provider information and evaluation results sent to you. **Do not** use the school or provider address. Submit this form to the local Public Health Region office. **Update the form as necessary please.**
(Check all that apply.)

EMS Provider Medical Director	EMS Training Program Medical Director
--------------------------------------	--

Name: _____

Preferred Mailing Address: _____

DO NOT USE ADDRESS OF EMS PROVIDER OR EDUCATIONAL PROGRAM

City: _____

Medical License #: _____ **Phone:** _____

Fax: _____

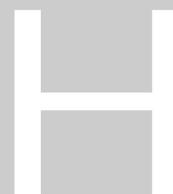
Please list all EMS Training Programs and all EMS Providers for which you act as medical director. (Use back of form if necessary.)

EMS Training Program or Provider	Address, City & Zip
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

I verify that I am a licensed physician under the terms of the Medical Practice Act, Texas Civil Statutes, Article 4495b and rules promulgated by the Texas State Board of Medical Examiners pursuant to the terms of the Medical Practice Act. I have a copy of the Texas State Board of Medical Examiners-Medical Director Rules 197.1 – 197.6 and I am familiar with those rules. I understand that as the Medical Director for an EMS Provider, I am responsible for all aspects of the operation of the above named EMS system(s) concerning provision of medical care. I understand that as Medical Director for an EMS training program I am to provide direction, overall instruction and oversight for all medically focused training components including clinical practice required in EMT Basic, EMT Intermediate and EMT Paramedic training courses. I understand that I am to assist the EMS Coordinator to insure that the content of all courses is medically sound and proper for Prehospital care rendered by EMT's, EMT Intermediates and EMT Paramedics. I understand that I am to assist the EMS Coordinator in the evaluation of skills proficiency of students. I understand that I am ethically bound to assist the Department of Health in any investigation regarding an EMS matter concerning an EMS provider or EMS training program with which I am associated and I will render such assistance in an unbiased and timely manner.

Signature: _____ **Date:** _____

Appendix



Course Approval/Notification Form



Texas Department of Health
 Emergency Medical Services
EMS Course Approval/Notification Form

School Number:

Note: This form must be submitted to the regional office at least 30 days prior to the proposed start date. A course may not be started, advertised,* or have tuition and fees collected until it is approved by TDH and assigned a school number. § 157.32(r)(1)(2). *College catalogs are an exception.

Program Name:

<input type="checkbox"/> ECA <input type="checkbox"/> EMT <input type="checkbox"/> EMT-I <input type="checkbox"/> EMT-P <input type="checkbox"/> EMS Instructor <input type="checkbox"/> EMD Instructor	<input type="checkbox"/> Initial <input type="checkbox"/> Remedial <input type="checkbox"/> Re-certification
--	--

Location of Classroom: _____

Course Starting Date: _____ Course Ending Date: _____

Course Meeting Days: _____ Course Meeting Times: _____

Course Coordinator: _____ Phone: _____

Mailing Address: _____

Principle Instructor: _____ Phone: _____

Mailing Address: _____

Course Sponsor: _____

Course Open to Public? YES NO Tuition: _____

Course Contact Hours: _____ Anticipated Number of Students: _____

Clinical Internship site(s): _____

Fee attached: Basic (\$25) Advanced (\$50) Instructor (\$25) Emergency Medical Operator Instructor (\$50)
 Other, Specify: _____

 PROGRAM DIRECTOR / COORDINATOR

 DATE

Regional Use Only – Do Not Write In This Area

PHR: _____ Approved Denied

Reason(s) for Denial: _____

Regional Evaluator: _____

Receipt Number:	_____
Fee Remit/Deposit Date:	_____
Fee Postmark Date:	_____
Fee Received Date:	_____
Approval Date:	_____

cnf form

(3/01) 2A284/160

Sample Preceptor Training Course

“Mentoring in the Field”

Introductions

1. Introduction of staff
2. Schedule
3. Continuing education credit

Philosophy of Paramedic Education Today

1. New National Standard Curriculum
2. Emotional Intelligence
3. Three domains of learning
4. Multiple Intelligence
5. Inter-rater reliability

Philosophy of the Field Internship

1. Importance of the internship in paramedic education
2. Preceptor as mentor, educator, evaluator
3. Roles and responsibilities of others in internship
 - a. intern, captain, paramedic coordinator, clinical coordinator, department, school
4. Student Bill of Rights
5. Characteristics of a good preceptor

Creating a Positive Learning Environment

1. Orientation to crew and station
2. Importance of observation time
3. Establishing goals and expectations
4. Motivating students

The Preceptor as an Educator

1. Characteristics of the adult learner
2. Novice v. expert
3. Practice to mastery level
4. Right and left brain learners
5. Stimulating the student's memory
6. Directing the student's attention
7. Providing practice for the student (scenarios and simulations)

Evaluation and Feedback

- a. Development of the evaluation standard (safe, competent, consistent)
- b. Use of goal setting and plans for improvement
- c. Pitfalls of multiple evaluators
- d. Oral v. written feedback and evaluation
- e. Importance of positive reinforcement (sandwiching technique)
- f. Importance of confidence in learning and performance
- g. Interpersonal communication exercises

Documentation

- a. Differences in paperwork
- b. Rating scale descriptors
- c. Clear v. vague descriptions of performance issues
- d. Timelines for written evaluations
- e. Specific department policies or procedures
- f. Preceptor requirements

Conflict Resolution

- a. Counseling and mediation
- b. Use of resources
- c. Options (conference, ride along, educational contract, clinical time, school work, change of venue, termination)
- d. Termination process

Preceptor Evaluation

- a. Peer evaluation
- b. Program evaluation
- c. Documentation review
- d. Student evaluation

Question and Answer Panel

- a. Participants learn from expertise of group and instructors

Thanks to the Southeast Emergency Medical Service Council for the use of this document in this manual

Program Application



EMS Training Program Application Bureau of Emergency Management

Note: This form must be submitted to the appropriate regional office at least 90-days prior to proposed start of program activities. Upon approval of the program, the program director and/or course coordinator may begin the self-study process.

Program Name: _____

Program Level: Basic Advanced If "Advanced" give date of Basic Program approval. _____

Physical Location: _____

Program Director: _____

Mailing Address: _____

City, State Zip: _____

Program Sponsor: _____

Mailing Address: _____

City, State Zip: _____

Coordinator (if different from Program Director): _____

Medical Director: _____

Mailing Address (not Program Address): _____

City, State Zip: _____

Program Open to Public? Yes No

Anticipated number of courses per year? _____

Anticipated number of students per course? _____

Check here if this program will *not* be ongoing.

Clinical Affiliates: _____

Field Internship Affiliates: _____

Signature: _____

Date: _____

Re-Certification Courses

The successful completion of a re-certification course is one of the options allowed for re-certification under Rule 157.34. These courses are designed to bring new material that may not have been included in the initial training of the EMS professional. On the following pages are sample re-certification courses coordinators may use or modify to fit the needs of the students.

ECA Re-certification Course

Preparatory:	Medical/Legal	1 hour
	Human Body Review	1 hour
	1. Cardiovascular system	
	2. Respiratory System	
	3. Nervous System	
	Infection Control	1 hour
	Common Infectious Diseases	
	Total	3 hours
<hr/>		
Airway/ Ventilation	Respiratory Review	0.5 hours
	1. Respiratory Physiology	
	2. Airway Anatomy in Infants and Children	
	Assessment of Breathing	1 hour
	Techniques of Ventilations	1.5 hours
	1. Airway Adjuncts	
	2. Oxygen Delivery	
	3. Airway Practice Scenarios	
	Total	3 hours
<hr/>		
Patient Assessment	Initial Assessment	0.5 hours
	Focused History & Physical Exam: Trauma Patient	0.5 hours
	Significant MOI	
	Non-Significant MOI	
	Focused History & Physical Exam: Medical Patient	0.5 hours
	Responsive	
	Patient Assessment Scenarios	0.5 Hours
	Total	2 hours
<hr/>		
Trauma	Shock	1 hour
	Spinal Injuries	0.5 hours
	Chest & Abdominal Injuries	0.5 hours
	Trauma Assessment & Management Scenarios	1 hour
	*Trauma module may be satisfied with initial certification or re-certification of BTLS or PHTLS	
	Total	3 hours
<hr/>		
Medical	General Pharmacology	1 hour

Respiratory Emergencies	0.5 hours
Allergic Reactions	0.5 hours
Cardiac Emergencies	1 hour
Diabetic Emergencies	0.5 hours
Stroke Emergencies	0.5 hours
Drug, Alcohol & Poisoning Emergencies	0.5 hours
Seizures & Syncopal Episodes	0.5 hours
Acute Abdominal Emergencies	0.5 hours
Environmental Emergencies	0.5 hours
Behavioral Emergencies	0.5 hours
Obstetric & Gynecological Emergencies	1 hour
Drowning, Near-Drowning & Diving Emergencies	0.5 hours
Medical Emergencies Assessment & Management	1 hour
Total	9 hours

Special Considerations

Infants & Children	2 hours
Geriatric Patients	1 hour
Total	3 hours

Clinically Related Operations

Ambulance Operations
Emergency Preparedness
Hazardous Materials
Mass Casualty Management
Other subjects as approved by Medical Director

Hour requirements for this content area may be met by: 1. Having one class of one (1) hour, or 2. A combination of classes that total one (1) hour. All classes must be one of the subjects listed or approved by the services Medical Director

Total 1 hour

Grand Total 24 hours

EMT Re-certification Course

Preparatory:	Medical/Legal	2 hours
	1. Consent Issues	
	2. Crime Scenes and Evidence Preservation	
	Human Body Review	2 hours
	4. Cardiovascular system	
	5. Respiratory System	
	6. Nervous System	
	Well being of the EMT	1 hour
	1. Understanding Stress	
	2. Dealing with the Dying Patient and Family Members	
	Infection Control	1 hour
	Common Infectious Diseases	
	Total	6 hours
<hr/>		
Airway/ Ventilation	Respiratory Review	1 hour
	1. Respiratory Physiology	
	3. Airway Anatomy in Infants and Children	
	Assessment of Breathing	1 hour
	Techniques of Ventilations	2 hours
	4. Airway Adjuncts	
	5. Oxygen Delivery	
	6. Pulse Oximetry	
	7. Automatic Transport Ventilators	
	Special Considerations of Airway Management	2 hours
	1. Infants and Children	
	2. Facial Injuries	
	3. Assisting with Advanced Airway Procedures	
	4. Airway Practice Scenarios	
	Total	6 hours
<hr/>		
Patient Assessment	Initial Assessment	0.5 hours
	Focused History & Physical Exam: Trauma Patient	0.5 hours
	Significant MOI	
	Non-Significant MOI	
	Focused History & Physical Exam: Medical Patient	0.5 hours
	Responsive	
	Unresponsive	
	Detailed Exam & Ongoing Assessment	1 hour
	Patient Assessment Scenarios	1.5 Hours
	Total	4 hours
<hr/>		

Trauma	Bleeding & Shock	1 hour
	Head, Eye, Face and Neck Injuries	1 hour
	Spinal Injuries	0.5 hours
	Chest & Abdominal Injuries	1 hour
	Burn Emergencies	0.5 hours
	Trauma Assessment & Management Scenarios	2 hours
*Trauma module may be satisfied with initial certification or re-certification of BTLIS or PHTLS		
	Total	6 hours
Medical	General Pharmacology	1.5 hours
	Respiratory Emergencies	1 hour
	Allergic Reactions	1 hour
	Cardiac Emergencies	1 hour
	Medical Emergencies Assessment & Management	1.5 hours
	Diabetic Emergencies	1 hour
	Stroke Emergencies	1 hour
	Drug, Alcohol & Poisoning Emergencies	1 hour
	Seizures & Syncopal Episodes	1 hour
	Medical Emergencies Assessment & Management	1.5 hours
	Acute Abdominal Emergencies	1 hour
	Environmental Emergencies	1 hour
	Behavioral Emergencies	1 hour
	Obstetric & Gynecological Emergencies	1 hour
	Drowning, Near-Drowning & Diving Emergencies	1 hour
	Medical Emergencies Assessment & Management	1.5 hours
	Total	18 hours
Special Considerations	Infants & Children	2 hours
	Geriatric Patients	1 hour
	Abuse & Assault	1 hour

Patients with Special Challenges 2 hours

Total 6 hours

**Clinically
Related
Operations**

Ambulance Operations

Emergency Preparedness

Hazardous Materials

Mass Casualty Management

Other subjects as approved by
Medical Director

Hour requirements for this content area may be met by: 1. Having one class of two (2) hours, or 2. A combination of classes that total two (2) hours. All classes must be one of the subjects listed or approved by the services Medical Director

Total 2 hours

Grand Total 48 hours

EMT-I Re-certification Course

Preparatory:	Medical/Legal:	1 hour
	1. Consent Issues	
	2. Crime Scenes and Evidence Preservation	
	3. Ethics	
	Pathophysiology:	3 hours
	1. Fluids and Electrolytes	
	2. Hypoperfusion	
	Pharmacology:	3 hours
	3. Pharmacokinetics	
	4. Pharmacodynamics	
	5. Medication Administration Practice	
	a. Pulmonary	
	b. Percutaneous	
	c. Parenteral	
	d. Enteral	
	Illness and Injury Prevention	1 hour
	Therapeutic Communications	1 hour
	Total:	9 hours
<hr/>		
Airway/ Ventilation	Anatomy & Physiology of the Respiratory System	2 hours
	Basic Airway Management	1 hour
	Skills Practice:	
	8. Airway Adjuncts	
	9. Oxygen Delivery	
	10. Pulse Oximetry	
	11. Suctioning	
	Advanced Airway Procedures:	2.5 hours
	1. Endotracheal Intubation	
	2. Nasotracheal Intubation	
	3. Non-visualized airways (CombiTube, LmaskA, PTL, EOA/EGTA, etc)	
	4. Digital Intubation	
	5. Surgical Airways	
	Special Considerations of Airway Management:	1.5 hours
	5. Infants and Children	
	6. Facial Injuries	
	7. Transport Ventilators	
	Airway Practice Scenarios	2 hours
	Total:	9 hours
<hr/>		

Patient Assessment

History Taking	1 hour
Patient Assessment: Trauma Patient	2 hours
1. Isolated trauma	
2. Major trauma	
Medical	
1. Responsive patient	
2. Unresponsive patient	
Clinical Decision Making	1 hour
Patient Assessment Scenarios	2 hours
Total:	6 hours

Trauma*

Shock	1 hour
Blunt & Penetrating Trauma	1 hour
Soft Tissue & Musculoskeletal Trauma	1 hour
Head, Face and Neck Trauma	1 hour
Spinal Trauma	0.5 hour
Thoracic Trauma	1 hour
Abdominal Trauma	1 hour
Burn Emergencies	0.5 hour
Trauma Assessment & Management Scenarios	2 hours
Total:	9 hours

*Trauma module may be satisfied with initial certification or re-certification of BTLIS or PHTLS

Medical

Respiratory:	2 hours
1. Respiratory Emergencies	
2. Assessment & Treatment of Respiratory Emergencies	
Cardiology:	6 hours
1. Anatomy & Physiology	
2. Dysrhythmia Review	
3. Cardiovascular Emergencies	
4. Assessment & Treatment of Cardiovascular Emergencies	
Neurology:	1 hour
1. Anatomy & Physiology	
2. Assessment & Treatment of Nervous System Emergencies	
Medical Emergencies Assessment & Management Scenarios	1 hour

Allergic Reactions & Anaphylaxis:	1 hour
1. Anatomy & Physiology	
2. Assessment & Treatment of Allergic Reactions	
3. Assessment & Treatment of Anaphylaxis	
Abdominal Emergencies:	2 hours
1. Anatomy & Physiology	
2. Assessment & Treatment of abdominal emergencies	
3. Assessment & Treatment of renal emergencies	
Toxicology:	4 hours
1. Poisonings	
2. Substance Abuse	
3. Alcohol Abuse	
Environmental:	2 hours
1. Hyperthermia	
2. Hypothermia	
3. Diving and near-drowning	
Medical Emergencies Assessment & Management Scenarios	1 hour
Infectious and Communicable Diseases:	1 hour
Behavioral & Psychiatric Disorders:	2 hours
1. Assessment & Treatment of Behavioral and psychiatric disorders	
2. Violent patients and restraints	
Gynecology:	1.5 hours
1. Anatomy & Physiology	
2. Assessment & Treatment of Gynecological emergencies	
Obstetrics:	1.5 hours
1. Assessment & Treatment of the obstetrical patient	
2. Complications of delivery	
Medical Emergencies Assessment & Management Scenarios	1 hour
Total:	27 hours

Special Considerations

Neonates & Pediatrics	3 hours
Geriatric Patients	1 hour
Abuse & Assault	1 hour
Patients with Special Challenges	2 hour
Acute Interventions for the Chronic	

Care Patient 2 hours

Total: 9 hours

**Clinically
Related
Operations**

Ambulance Operations

Medical Incident command

Hazardous Materials

Rescue Awareness & Operations

Crime Scene Awareness

Other subjects as approved by
Medical Director

Hour requirements for this content area may be met by: 1. Having one class of three (3) hours, or 2. A combination of classes that total three (3) hours. All classes must be one of the subjects listed or approved by the services Medical Director.

Total: 3 hours

Grand Total 72

EMT-P Re-certification Course

Preparatory:	Medical/Legal:	2 hours
	1. Consent Issues	
	4. Crime Scenes and Evidence Preservation	
	5. Ethics	
	Pathophysiology:	3 hours
	1. Cellular structure and function	
	2. Cellular Response to Change and Injury	
	3. Fluids and Electrolytes	
	4. Hypoperfusion	
	Pharmacology:	4 hours
	6. Pharmacokinetics	
	7. Pharmacodynamics	
	8. Medication Administration Practice	
	a. Pulmonary	
	b. Percutaneous	
	c. Parenteral	
	d. Enteral	
	Illness and Injury Prevention	1 hour
	Therapeutic Communications	1 hour
	Life Span Development	1 hour
	Total:	12 hours
<hr/>		
Airway/ Ventilation	Anatomy & Physiology of the Respiratory System	2 hours
	Basic Airway Management Skills Practice:	1 hour
	12. Airway Adjuncts	
	13. Oxygen Delivery	
	14. Pulse Oximetry	
	15. Suctioning	
	Advanced Airway Procedures:	5 hours
	6. Endotracheal Intubation	
	7. Nasotracheal Intubation	
	8. Non-visualized airways (CombiTube, LmaskA, PTL, EOA/EGTA, etc)	
	9. Digital Intubation	
	10. Surgical Airways	
	11. Rapid Sequence Intubation	
	Special Considerations of Airway Management:	2 hours
	8. Infants and Children	
	9. Facial Injuries	

10. Transport Ventilators

Airway Practice Scenarios 2 hours
Total: 12 hours

Patient Assessment

History Taking 1 hour
 Techniques of Physical Examination 1 hour
 Patient Assessment: 2 hours
 Trauma Patient
 3. Isolated trauma
 4. Major trauma
 Medical
 3. Responsive patient
 4. Unresponsive patient
 Clinical Decision Making 1 hour
 Communications & Documentation 1 hour
 Patient Assessment Scenarios 2 hours
Total: 8 hours

Trauma*

Trauma & Trauma Systems 1 hour
 Shock 2 hour
 Soft Tissue & Musculoskeletal Trauma 1 hour
 Head, Face and Neck Trauma 1 hour
 Spinal Trauma 1 hour
 Thoracic Trauma 1 hour
 Abdominal Trauma 1 hour
 Burn Emergencies 0.5 hour
 Shock Trauma Resuscitation 1.5 hours
 Trauma Assessment & Management Scenarios 2 hours

*Trauma module may be satisfied with re-certification of BTLs or PHTLS (8 hours) PLUS Shock (2 hours) and Shock Trauma Resuscitation (1.5 hours) lectures (11.5 hours).

Initial certification in BTLs or PHTLS will NOT count toward meeting Trauma Content hour requirements.

Total: 12 hours

Medical

Pulmonology: 2 hours
 3. Respiratory Emergencies
 4. Assessment & Treatment of Respiratory Emergencies

Cardiology:	10 hours
5. Anatomy & Physiology	
6. Dysrhythmia Review	
7. 12 lead ECGs	
8. Cardiovascular Emergencies	
9. Assessment & Treatment of Cardiovascular Emergencies	
Neurology:	1 hour
3. Anatomy & Physiology	
4. Assessment & Treatment of Nervous System Emergencies	
Medical Emergencies Assessment & Management Scenarios	1 hour
Allergic Reactions & Anaphylaxis:	1 hour
4. Anatomy & Physiology	
5. Assessment & Treatment of Allergic Reactions	
6. Assessment & Treatment of Anaphylaxis	
Endocrinology:	1.5 hours
1. Anatomy & Physiology	
2. Assessment & Treatment of Endocrine Disorders	
Gastroenterology:	1.5 hours
4. Anatomy & Physiology	
5. Assessment & Treatment of abdominal emergencies	
Urology and Renal:	1.5 hours
1. Anatomy & Physiology	
2. Assessment & Treatment of Urologic & Renal emergencies	
Medical Emergencies Assessment & Management Scenarios	1 hour
Hematology:	1.5 hours
1. Anatomy & Physiology	
2. Assessment & Treatment of hematologic emergencies	
Toxicology:	4 hours
4. Poisonings	
5. Substance Abuse	
6. Alcohol Abuse	
Environmental:	2 hours
4. Hyperthermia	
5. Hypothermia	
6. Diving and near-drowning	
Medical Emergencies Assessment & Management Scenarios	1 hour

Infectious Diseases:	1 hour
Behavioral & Psychiatric Disorders:	2 hours
3. Assessment & Treatment of Behavioral and psychiatric disorders	
4. Violent patients and restraints	
Gynecology:	1.5 hours
3. Anatomy & Physiology	
4. Assessment & Treatment of Gynecological emergencies	
Obstetrics:	1.5 hours
3. Assessment & Treatment of the obstetrical patient	
4. Complications of delivery	
Medical Emergencies Assessment & Management Scenarios	1 hour

Total: 36 hours

Special Considerations

Neonates:	2 hours
Pediatrics:	2 hours
Geriatric Patients	1.5 hours
Abuse, Assault & Neglect:	1.5 hours
Patients with Special Challenges	2 hours
Acute Interventions for the Chronic Care Patient:	3 hours
1. Specific Home Health Situations	
2. Home Medical Therapy Devices:	
a. Home ventilators	
b. Vascular access devices	
c. Catheters:	
i. Foley	
ii. Feeding tubes	

Total: 12 hours

Clinically Related Operations

Ambulance Operations
Medical Incident command
Hazardous Materials
Rescue Awareness & Operations
Crime Scene Awareness

Other subjects as approved by
Medical Director

Hour requirements for this content area may be met by: 1. Having one class of four (4) hours, or 2. A combination of classes that total four (4) hours. All classes must be one of the subjects listed or approved by the services Medical Director.

Total: 4 hours

Grand Total 96



Remedial Courses

Remedial courses are an integral part of initial education. According to Rule 157.33 a student that fails both the initial and retest state examination must take a remedial (formerly known as a “refresher”) course. The student may then take a second retest. Failure of the second retest will result in the student completing another initial course at the level that they are attempting to gain certification. On the following pages are sample remedial course coordinators may use or modify to fit the needs of the students.

ECA Remedial Course

Preparatory:	1 hour
Patient Assessment:	1.5 hours
Medical/Behavioral:	3 hours
Trauma:	1.5 hours
Obstetrics/Infants/ Children:	2 hours
EMS Operations:	2 hours
Total	12

EMT-B Remedial Course

Preparatory:	1 hour
Airway:	2 hours
Patient Assessment:	3 hours
Medical/Behavioral:	4 hours
Trauma:	4 hours
Obstetrics, Infants, Children:	2 hours
Elective:	8 hours from EMT curriculum
Total	24

EMT-I Remedial Course

Preparatory:	5 hours
Airway Management & Ventilation:	5 hours
Medical:	12 hours
Trauma:	8 hours
Special Considerations:	4 hours
Operations:	2 hours
Total	36

EMT-P Remedial Course

Preparatory:	6 hours
Airway Management & Ventilation:	6 hours
Medical:	18 hours
Trauma:	10 hours
Special Considerations:	6 hours
Operations:	2 hours
Total	48

