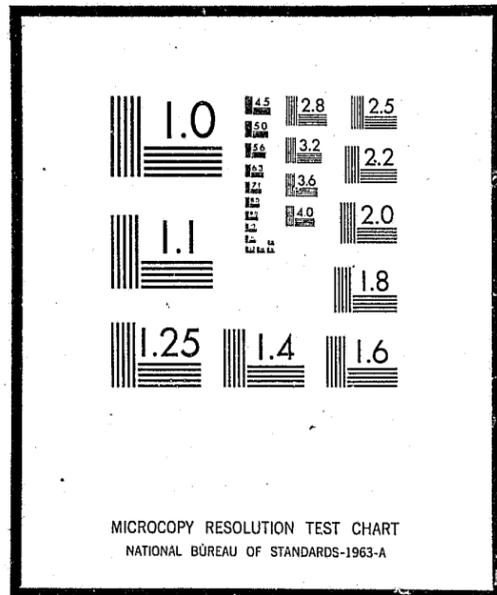


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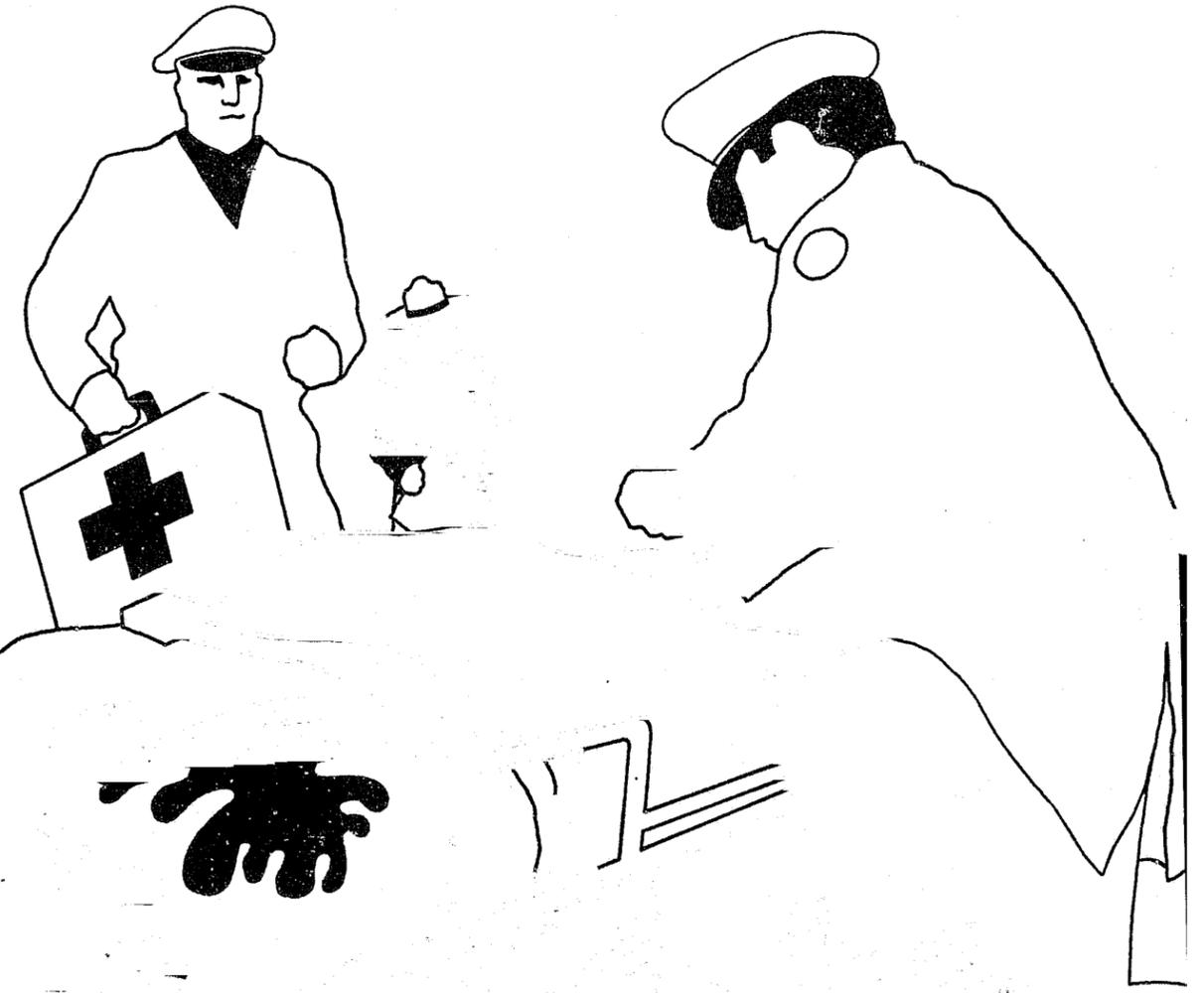
● emergency medical services — crash injury management for traffic law enforcement officers — course guide

U.S. Department of Transportation
National Highway Traffic Safety Administration



July 1973

7239



emergency medical services
**crash injury
 management**
 for traffic law enforcement officers

course guide



U.S. Department of Transportation
 National Highway Traffic Safety Administration
 Washington, D.C. 20590

July 1973

FOREWORD

As part of its continuing efforts to improve the safety of the motorist on the nation's highways and roads, the National Highway Traffic Safety Administration recognized the need to develop a standardized approach for providing training in emergency medical care for first responders to traffic accidents. The contract directed that the course be modeled on the 81-hour "Basic Training Program for Emergency Medical Technician--Ambulance" recently developed by Dunlap and Associates, Inc., for the U.S. Department of Transportation.¹

The basic working documents produced for the program are the Course Guide, designed to be used by the training administrator as the basic planning document for the course, the Instructor's Lesson Plans, prepared to assist the instructor in conducting each lesson, and the Student Study Guide, designed as a workbook to assist the student in reviewing materials presented in class. In addition, a Final Report describes the development of the training course and course documents.

Dr. Aaron Adams of the National Highway Traffic Safety Administration served as Contract Technical Manager. Mr. Frederick J. Lewis of the Rescue and Emergency Medical Services Division and Mr. Martin M. Puncke of the Traffic Regulations and Adjudication Division served as project advisors. The project was directed by Miss Arlene M. Cleven of Dunlap and Associates, Inc., who prepared all course documents. Mr. Joseph T. Fucigna, Executive Vice President of the Corporation, served as responsible corporate officer.

Dunlap and Associates, Inc., is indebted to the following individuals who provided critical technical reviews of draft course materials:

- Dr. Edward A. Rem, Director of Emergency Medical Services, Norwalk Hospital, Norwalk, Connecticut, and the Course Coordinator for the pilot test of the "Basic Training Program for Emergency Medical Technician--Ambulance."

¹U.S. Department of Transportation, National Highway Traffic Safety Administration. Basic Training Program for Emergency Medical Technician--Ambulance. Washington, D.C.: U.S. Government Printing Office, No. TD-2.208:EM 3 (Concepts and Recommendations, October 1969), No. TD-2.208:EM 3/2 (Course Guide and Course Coordinator Orientation Program, October 1969), and No. TD-2.208:EM 3/3 (Instructor's Lesson Plans, February 1970).

- . Dr. Charles A. Rockwood, Jr., Professor and Chairman of Orthopaedics, University of Texas Medical School at San Antonio, and Chairman of the Committee on Non-Physician Education, American Academy of Orthopaedic Surgeons.
- . Dr. George W. Hyatt, Professor of Surgery (Orthopaedics) and Chief of Orthopaedics, Georgetown University Medical Center, and Chairman of the Committee on Injuries, American Academy of Orthopaedic Surgeons.
- . Mr. Laurence M. Ford, Director of Fire Training Programs, Hartford State Technical College, Hartford, Connecticut.

We are particularly grateful to the Department of Police Service of New Haven, Connecticut, for providing the equipment, facilities, instructors and students for the pilot test of the course. Dr. Martin L. Piccirillo, Director of Training and Education, served as the training administrator. Able instruction and critical review of course materials were provided by the two course instructors: Sergeant Michael N. Tullo and Patrolman Joseph R. Polio. The cooperation and critical comments received from the eight students in the pilot program are gratefully acknowledged. These students were: Patrolmen Robert L. Coffey, James T. Conners, Thomas J. Farrell, Theodis Fenn, Sr., Thomas H. O'Donnell, Dean B. Runlett, Theodore R. Wilkins, and Edward R. Woods.

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CRASH INJURY MANAGEMENT

COURSE GUIDE

Purpose of the Guide

This Course Guide has been prepared to aid in planning and conducting a training program in emergency medical care for first responders to traffic accidents. In most cases, it is expected that the first official at the scene will be a law enforcement officer who is patrolling the roadway in a radio-equipped car. This document contains a detailed description of the training program; suggestions for course planning including class size, scheduling lessons, recommended facilities, references, training equipment, and instructor and student prerequisites; guidelines for conducting the course; and recommendations for measuring student achievement.

The Course Guide, therefore, has been designed to be used by the training administrator as the basic planning document for the crash injury management course. Two other documents complete the training package:

- . Instructor's Lesson Plans--This document has been designed to be used by the course instructor. It defines the content of the training program and contains a compilation of lessons. For each lesson are specified the training objectives, suggested training aids and a detailed lesson outline.
- . Student Study Guide--This document has been designed as a student workbook. It includes the training objectives for each lesson and a set of review exercises as appropriate. It was designed to assist the student in reviewing and reinforcing information presented in the classroom.

Objectives and Scope of the Course

The objective of the course is to provide training in all aspects of emergency medical care required at the scene of a traffic accident. In defining the scope of the course, it is assumed that the rescuer is not an ambulance

emergency medical technician. However, since he is expected to be the first person at the scene of an accident, he should be thoroughly familiar with all procedures required for providing basic care to accident victims and removing them from the vehicle if necessary. It is further assumed that he will be traveling in a vehicle with limited space for emergency medical care equipment, no space for transporting a prone or supine patient, and only simple car tools and miscellaneous equipment (that is, it is not expected that he will have power equipment for extrication purposes).

With the preceding objective and limitations in mind, the scope of the course was defined as follows:

- . Roles and responsibilities at the accident scene.
- . Legal aspects relative to rendering emergency medical care.
- . All life-threatening emergencies including airway care, pulmonary and cardiopulmonary resuscitation, control of bleeding, and prevention of shock.
- . All crash-related injuries including wounds, fractures and burns.
- . Illnesses or conditions that might cause or result from a crash, such as heart attack, stroke, diabetic coma, insulin shock, epileptic attack, emergency childbirth, and alcohol and drug abuse.
- . Other emergencies that could be encountered in the rescuer's day-to-day activities, such as ingested poisons, bites and stings, and exposure to heat and cold.
- . Patient examination, diagnosis and triage.
- . Gaining access to patients using simple tools carried in a vehicle.
- . Moving injured persons from vehicles or the roadway if movement is necessary or desirable.

The emphasis of the emergency care training and the majority of training time is devoted to the practical aspects of emergency care required at an accident scene. Therefore, approximately half of the course is devoted to the

practice of crash-related and life-threatening skills and the total course emphasis is on these topics. In addition to classroom practice, field training provides an opportunity to "package" patients in a vehicle and remove them from the vehicle if necessary.

Equipment Coverage

In terms of emergency medical care, it is assumed that the rescuer will have the following equipment and supplies and therefore training is provided in their use: dressings and bandages (triangular and self-adhering roller type), splints for upper and lower extremities, a short spine board or splint with associated neck and back supports and straps, an eye protector (cup or cone), and a blanket. Types of splints are not specified since they are expected to vary jurisdictionally. In addition, in the event that equipment is available in the jurisdiction, some training time is allotted to an instructor demonstration and student practice with airways, manually operated bag-mask resuscitators and oxygen equipment in order that students will be familiar with their design and use. If this last group of equipment is regularly available in all patrol cars of the jurisdiction, it would be advisable to add time to the course for more practice in its use.

The specification of emergency medical care equipment is in no way intended to limit the amount of equipment carried in the vehicle. Rather, it is intended to represent a reasonable minimum for the purposes of stabilizing patient conditions and saving lives at the scene of an accident. As stated previously, a basic assumption of course design is that the rescuer is not an ambulance emergency medical technician. The equipment selected for training is considered consistent with the rescuer's function of stabilizing the patient's condition until the ambulance arrives.

Just as the rescuer is not an emergency medical technician, he is also not a member of a rescue crew and therefore does not need detailed training with extrication equipment. It is assumed that properly trained rescue crews are available to him for these services. In terms of other equipment and supplies, therefore, it is assumed that he will have only simple equipment that he might use to gain access to the patient, such as a jack, tire iron, pliers, rope, gloves, screwdriver, hammer and knife.

Course Content

The course consists of a minimum of 40 hours of classroom and field training. Each lesson requires between 1 and 3 hours for completion. The course may therefore be given one or more times per week in daytime or evening sessions or may be compressed into a time frame of one week.

Twenty lessons have been developed for the course. These include all technical lessons, field training and final written and practical examinations. The 20 lessons account for 36 hours of training course time. In addition, it is recommended that four 1-hour "Review and Discussion" lessons be interspersed in the training program. It is suggested that one "Review and Discussion" lesson be included for each 8 hours of training time for the specific purpose of assuring that training course contents are being assimilated. The "Review and Discussion" lessons should be devoted to reviewing appropriate exercises given in the Student Study Guide.

The titles and times required for each of the 20 developed lessons and the four "Review and Discussion" lessons are given on the following page. The training objectives for each lesson are given below:

<u>Lesson No.</u>	<u>Title and Objectives</u>
1	<p><u>Introduction to Crash Injury Management Training</u></p> <p>Provide the student with sufficient information for him to:</p> <ul style="list-style-type: none"> . Understand course coverage, schedule and requirements. . Define the rescuer's emergency care role and responsibilities and legal rights and responsibilities relative to emergency care. . Introduce the student to the emergency care equipment which he will be trained to use.
2	<p><u>Overview of the Human Body and Diagnostic Signs</u></p> <p>Provide the student with a brief overview of the design of the body and the diagnostic signs with which he will be dealing in his emergency care work.</p>
3	<p><u>Airway Care and Pulmonary Resuscitation</u></p> <p>Provide the student with sufficient information for him to:</p> <ul style="list-style-type: none"> . Describe the importance of oxygen to the body, particularly the brain.

Titles and Times Required for Course Lessons

<u>Lesson Number and Title</u>	<u>Time (Hrs)¹</u>
<u>Introductory material:</u>	
1. Introduction to crash injury management training	1
2. Overview of the human body and diagnostic signs	1
<u>Life threatening emergencies, wounds and fractures:</u>	
3. Airway care and pulmonary resuscitation	2
4. Cardiopulmonary resuscitation	3
5. Shock, bleeding and injuries to soft tissues	3
6. Fractures and dislocations of the extremities	3
7. Injuries to the skull, spine, chest and pelvis	2
<u>Medical and environmental emergencies:</u>	
8. Heart attack, stroke, diabetes and epilepsy	1
9. Poisons and drugs	1
10. Burns and exposure to heat and cold	1
11. Emergency childbirth	1
<u>Patient access and handling:</u>	
12. Gaining access to patients	1
13. Moving patients	1
<u>Review, practice and examination:</u>	
-- Review and discussion (four 1-hour sessions) ²	4
14. Patient examination and triage	2
15. Cardiopulmonary resuscitation practice	1
16. The accident scene: A situational review	2
17. Field training I	3
18. Field training II	3
19. Final written examination	2
20. Final practical examination	2
Total	40 hours

¹In general, a 10-minute break is included for each hour of instruction.
²No formal lesson plans were developed for the "Review and Discussion" lessons since it is expected that they will be devoted to review of exercises in the Student Study Guide.

Lesson No.

Title and Objectives

3
(cont'd)

- . Describe components of the respiratory system and explain how the system works.
- . Describe the signs of adequate and inadequate breathing.
- * Describe the technique for inserting and precautions to follow when using airways.
- . Describe airway care and resuscitation procedures for neck breathers (laryngectomees).

Provide the student with sufficient practice for him to:

- . Demonstrate on a manikin the four techniques for maintaining an open airway.
- . Demonstrate on a manikin procedures for dislodging foreign objects from the airway.
- . Demonstrate on an adult manikin the mouth-to-mouth and mouth-to-nose techniques of pulmonary resuscitation and on an infant manikin the mouth/nose technique.
- * Demonstrate ventilation of a manikin using the bag-mask resuscitator.
- * Demonstrate setting up, using and shutting down oxygen equipment.

4

Cardiopulmonary Resuscitation

Provide the student with sufficient information for him to:

- . Describe how the heart functions.
- . Describe the signs of cardiac arrest.

An asterisk () is used throughout the lesson plan to indicate that the information presented may be inapplicable to some jurisdictions.

Lesson No.

Title and Objectives

4
(cont'd)

- . Describe the technique of cardiopulmonary resuscitation and variations in technique for infants and small children.
- . Identify organs near the heart and dangers to the patient if cardiopulmonary resuscitation is not performed correctly.

Provide the student with sufficient practice for him to:

- . Demonstrate on a manikin cardiopulmonary resuscitation by a lone rescuer.
- . Demonstrate cardiopulmonary resuscitation on an infant manikin.
- . Demonstrate on a manikin cardiopulmonary resuscitation as a member of a team performing both as a ventilator and as a compressor, including changing positions during resuscitation.

5

Shock, Bleeding, and Injuries to Soft Tissues

Provide the student with sufficient information for him to:

- . Describe the design, functions and components of the circulatory system.
- . Describe the meaning of shock, signs of shock, and techniques for preventing shock.
- . Describe the meaning of and emergency care for anaphylactic shock.
- . Describe the signs, symptoms and emergency care for internal bleeding.
- . Describe the differences between arterial, venous and capillary bleeding.
- . Describe means of controlling bleeding.

Lesson No.

Title and Objectives

5
(cont'd)

- . Describe management of open and closed soft tissue wounds.

Provide the student with sufficient practice for him to demonstrate proficiency in dressing and bandaging various body parts.

6

Fractures and Dislocations of the Extremities

Provide the student with sufficient information for him to:

- . Describe the design of the extremities in layman's terms.
- . Define fractures and dislocations and their common signs.
- . Describe procedures for examining a patient for fractures of the extremities.
- . Describe in his own words the reason for splinting fractures.
- . Describe procedures for immobilizing all fractures and dislocations of the extremities.

Provide the student with sufficient practice for him to:

- . Demonstrate proficiency in immobilizing fractures and dislocations of the extremities.

7

Injuries to the Skull, Spine, Chest and Pelvis

Provide the student with sufficient information for him to:

- . Describe the design of the skull, spine, chest cavity and pelvis in layman's terms.
- . Describe what cerebrospinal fluid is and why no attempt should be made to stop bleeding from the nose or ears when a skull fracture is suspected.

Lesson No.

Title and Objectives

7
(cont'd)

- . Describe the signs of a skull fracture and of brain injuries.
- . Describe management of patients with skull fractures and with brain injuries.
- . Describe the main danger associated with fractures of the facial bones.
- . Describe the main danger associated with fractures of the spine and complications that can result from spine injuries.
- . Describe how to examine a patient for spine injuries.
- . Describe the main dangers and complications associated with chest injuries.
- . Describe the signs and management of patients with pelvic fractures.

Provide the student with sufficient practice for him to:

- . Demonstrate proficiency in bandaging an open skull wound.
- . Demonstrate proficiency in immobilizing a rib fracture.
- . Demonstrate proficiency in immobilizing the head and spine of seated patients.

8

Heart Attack, Stroke, Diabetes and Epilepsy

Provide the student with sufficient information for him to describe the causes, signs and emergency care for the following medical emergencies:

- . Heart attack
- . Angina
- . Heart failure
- . Stroke
- . Diabetic coma
- . Insulin shock
- . Epilepsy

Lesson No.

Title and Objectives

9

Poisons and Drugs

Provide the student with sufficient information for him to:

- . Describe the signs, emergency care and cautions associated with ingested poisons.
- . Describe the seriousness, care and cautions associated with bites and stings.
- . Describe the effects of alcohol and drugs, emergency care and cautions in dealing with alcohol and drug patients.

10

Burns and Exposure to Heat and Cold

Provide the student with sufficient information for him to:

- . Recognize the difference between first, second and third degree burns.
- . Use the rule of nines in estimating the criticality of a burn.
- . Describe emergency care for heat and chemical burns.
- . Describe the cause, signs and care for:
 - Heat cramps
 - Heat exhaustion
 - Heat stroke
 - General cooling of the body
 - Frostnip
 - Superficial frostbite
 - Deep frostbite (freezing)

11

Emergency Childbirth

Provide the student with sufficient information for him to be familiar with procedures to follow in caring for the mother and baby in the event of an emergency childbirth.

Lesson No.

Title and Objectives

12

Gaining Access to the Patient

Provide the student with sufficient information for him to understand techniques of gaining access to a patient using simple tools.

13

Moving Patients

Provide the student with sufficient information for him to know when accident victims should and should not be moved.

Describe emergency moves.

Provide the student with practice in lifting and moving patients from ground surfaces.

14

Patient Examination and Triage

Provide the student with sufficient information for him to:

- . Define and describe the implications of variations in each vital sign.
- . Demonstrate procedures to follow in performing a patient examination.
- . Identify cases which would be considered of the highest priority for emergency and medical care.

15

Cardiopulmonary Resuscitation Practice

Provide the student with additional practice in the technique of cardiopulmonary resuscitation.

16

The Accident Scene: A Situational Review

Provide the student with a review and integration of course content.

17

Field Training I

Provide the student with practice in dressing and bandaging wounds and immobilizing fractures in a field setting.

Lesson No.

Title and Objectives

18 Field Training II
Provide the student with practice in dressing and bandaging wounds and immobilizing fractures in a field setting.

19 Final Written Examination
Test achievement of course objectives.

20 Final Practical Examination
Evaluate student demonstration of the following skills:

- . Bandaging the head, eye and extremity.
- . Cardiopulmonary resuscitation alone and as a member of a team.
- . Performing an examination of life-threatening problems and a systematic check of injuries.
- . Splinting a fracture of the upper extremity.
- . Splinting a fracture of the femur.
- . Immobilization of the neck and torso of a sitting patient on a short backboard.
- . Immobilizing a flail chest.
- . Bandaging a sucking chest wound.

Course Planning Considerations

Class Size

The course emphasizes the development of student skill in recognizing signs and symptoms of various injuries and illnesses and in providing appropriate emergency medical care. It therefore relies heavily on demonstration

and practice as teaching methods. In order that maximum student participation will be achieved in classroom and field training sessions, class size must be small. For classroom sessions, it is recommended that the number of students be limited to 20. For practice periods and for field training, class size will be limited by the availability of equipment and the availability of instructors to assist in and supervise performance. In general, it is recommended that there be no more than 10 students for each instructor during practice periods. The time scheduled assumes that the equipment and instructors specified for that lesson have been met. If there is less equipment or fewer instructors than specified, additional time will be required.

Course Scheduling

The course has been designed in modular units so that it may be given one or more times per week in lessons lasting from 1 to 3 hours or organized into a 7- or 8-hour training day and given in a period of 5 to 6 days. Therefore, it can be interspersed with other training in a basic recruit course or given as a "specialist" type course in a sequential and compressed time frame

Two sample schedules shown on the following pages were prepared to indicate two reasonable approaches to scheduling of lessons when the course is given in compressed time frames of 5 or 6 training days. Each shows a logical progression of lessons as follows:

- . Introductory material--lessons providing an introduction to the course and overview of the human body and diagnostic signs.
- . Life threatening emergencies, wounds and fractures--lessons covering airway care and pulmonary resuscitation, cardiopulmonary resuscitation, bleeding, shock, soft tissue injuries, and fractures to various body parts.
- . Integration and review of course contents--lessons covering patient examination and triage (designed to integrate all signs, symptoms and means of examinations for various illnesses and injuries), two field training sessions, a verbal situational review of various accident situations that attempt to integrate course knowledge, and additional practice on cardiopulmonary resuscitation.
- . Final written and practical examinations.

Both schedules show a "Review and Discussion" lesson as the first period of days 2 through 5.

Day

<u>Time</u>	1	2	3	4	5		
8:00	Intro. to crash injury management training	Review and discussion	Review and discussion	Review and discussion	Review and discussion		
9:00	Overview of human body & diag. signs	Shock, bleeding and injuries to soft tissues	Injuries to the skull, spine, chest and pelvis	Burns & exposure to heat and cold	Cardiopulmonary resus. practice		
10:00	Airway care and pulmonary resuscitation			Patient examination and triage	The accident scene: A situational review		
11:00			Heart attack; stroke, diabetes, epilepsy				
12:00	LUNCH						
1:00	Emergency childbirth	Poisons and drugs	Moving patients	Gaining access to the patient	Final written examination		
2:00	Cardiopulmonary resuscitation	Fractures and dislocations of the extremities	Field training I	Field training II			
3:00							Final practical examination
4:00							
5:00							

Suggested schedule for five-day course.

<u>Time</u>	<u>Day</u>					
	1	2	3	4	5	6
8:00	Intro. to crash injury management training	Review and discussion	Review and discussion	Review and discussion	Review and discussion	Cardiopulmonary resuscitation practice
9:00	Overview of the human body and diagnostic signs	Shock, bleeding, and injuries to soft tissues	Injuries to the skull, spine, chest & pelvis	Poisons and drugs	Emergency childbirth	Final written examination
10:00	Airway care and pulmonary resuscitation			Patient examination and triage	The accident scene: A situational review	
11:00			Burns and exposure to heat and cold			Final practical examination
12:00	LUNCH					
1:00	Cardiopulmonary resuscitation	Fractures and dislocations of the extremities	Heart attack, stroke, diabetes, epilepsy	Field training I	Field training II	LUNCH
2:00			Moving patients			
3:00			Gaining access to the patient			
4:00						

Suggested schedule for six-day course.

Certain lessons may be inserted in the course at the convenience of the instructor. These include lessons on medical and environmental emergencies (heart attack, stroke, diabetes and epilepsy; emergency childbirth; poisons and drugs; burns and exposure to heat and cold), moving patients and gaining access to patients. The schedule for the five-day course shows these lessons interspersed throughout the schedule. The lessons on moving patients and gaining access have been placed with the two field training lessons since they have been designed to be given either in a classroom or field setting. For the six-day course, these lessons are shown inserted after the life-threatening emergencies and fractures have been covered.

If the course is spread out in time over several weeks or months, either progression of lessons could be used. If the instructor varies the schedule, it is suggested that he follow the principles of progression previously outlined.

Facilities

Facilities for the course include a lecture room sufficient for seating up to 20 students, including space for demonstration and student practice of skills. It should also include space for an instructor's lectern and any audiovisual aids the instructor plans to use. Students should be provided with ample space for working with text-size documents and for note taking. In addition to a lecture room, a garage or other suitable space that could house vehicles would be desirable for field training. Weather permitting, field training could be accomplished outdoors in a parking lot or other suitable area that is protected from the general public.

Training Equipment and Materials

There are two types of training equipment and materials used in this training program. One is the standard teaching aid consisting of such items as blackboards, projectors, screens, films, slides and other equipment and materials used by the instructor to facilitate learning. The other type consists of the emergency care equipment and supplies required to train the rescuer to perform his emergency care function on the highway; these latter material and equipment requirements are listed by lesson on the following page.

With regard to teaching aids, no specific set has been defined for this training program. It is assumed, of course, that a blackboard will be available for each lecture-discussion session. In addition, one film has been recommended for the course: "Emergency Childbirth" (Medical Self-Help Training Course, U. S. Public Health Service; available through local Office of Civil Defense). Other films or slides should be selected at the discretion of the instructor.

Material and Equipment Requirements for Each Lesson¹

EQUIPMENT/MATERIALS	LESSON																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<u>Emergency medical care</u>																				
*Oxygen tank and masks	x		1																	
*Bag-mask resuscitator	x		2																	
*S-shaped airway	x		1																	
*Oropharyngeal airway	x		2																	
Triangular bandages	x				10	40	30										10	10		40
Roller-type bandages	x				10	5											10	10		10
Universal dressings/gauze pads	x				10		5										10	10		5
<u>Eye protector (paper cup/cone)</u>	x				10													1		5
Upper extremity splint (set)	x					5												3	3	5
Lower extremity splint (set)	x					5												3	3	3
Short spine board or splint	x						2											1	1	1
Blanket				2		5	2						3	2	2			3	3	2
Stick (for tourniquet demonstration)					x															
<u>Car tools and miscellaneous supplies</u>																				
Jack, tire iron, pliers, rope, gloves, screw driver, hammer, knife	x												x							
<u>Manikins</u>																				
Adult resuscitation manikin			2	2										2	2					2
Infant resuscitation manikin			1	1											1					
<u>Vehicles</u>																				
Vehicle																		1	1	
*Wreck													x							

¹Numbers in the table are based on 10 students; e.g., if there are 20 students, all numbers should be doubled.

An "x" indicates that only one of the items is required regardless of the number of students.

*An asterisk is used to indicate that the equipment may be unavailable in some jurisdictions.

The instructor is advised that teaching aids are designed to complement the spoken word and may wish to tailor the teaching aids to his own style and needs. It might be noted that, for teaching anatomy and physiology, it would be helpful to have anatomic charts of each system discussed. Other areas where slides would be helpful are listed in the Instructor's Lesson Plans.

Instructor Qualifications

The course has been designed so that it can be taught by a single instructor, with assistants as necessary for supervision of skill practice. The lead instructor for a lesson could also serve as overall training administrator. The instructor should have the following qualifications:

- . Experience in traffic accident emergency medical care services.
- . Knowledge of all topics and skills covered in the course.
- . Familiarity with all jurisdictional laws and procedures relative to handling the injured on the highway.
- . Experience in teaching all topics and skills covered in the course.

In addition to the preceding qualifications, it is considered desirable for the instructor to have completed the 81-hour basic training program for emergency medical technicians.¹

Student Prerequisites

Students for this course will be recruits with qualifications that conform to established jurisdictional requirements. Since the course goes beyond much training now provided for the law enforcement officer, it is assumed that initially the course may be given to individuals with varying years of experience on the job. Although not specifically developed as a refresher course, it is believed that the course as designed can serve initially both for new recruits and experienced officers.

¹Op Cit.

References

The medical content of the course has been based on the text, Emergency Care and Transportation of the Sick and Injured, prepared by the American Academy of Orthopaedic Surgeons. This document and other references used in the development of course materials or of potential use to the instructor and student are listed in the appendix.

If the course is given in a compressed time frame of 5 days, it may be unreasonable to expect students to complete reading assignments prior to attending class. Therefore, reading assignments in a specified text have not been included in the course design. Should the instructor wish to utilize a student text, he should select one from those listed in the appendix. In any event, it is recommended that the texts listed in the appendix be available in a library for student reference.

Student Study Guide

The Student Study Guide has been prepared as an exercise workbook to assist students in reviewing materials presented in class. Included in the Guide is a unit of study for each lesson in the emergency medical care course. The training objectives are given for each lesson and, for most lessons, a set of review exercises is provided. No review exercises are included when the lesson provides general background information or when the lesson is a review or examination session.

Although the review exercises are designed in the form of test items, the Student Study Guide is not a test. It has been designed to be completed after a lesson or group of lessons has been presented in class. It therefore has been developed to assist students in reviewing and reinforcing information presented in class. It is suggested that review of appropriate Study Guide lesson units serve as a basis for each of the four "Review and Discussion" lessons interspersed in the course schedule.

Using the Lesson Plans

Each lesson plan consists of two parts. The first part briefly outlines the objectives and requirements for teaching the lesson; the second part provides a detailed outline of the lesson content.

Training requirements include, as appropriate, requirements for facilities, personnel and training aids. Training aids include recommendations for slides, films, charts, handouts, etc., as well as specific equipment and materials (for example, resuscitation manikins) needed for the lesson.

The outline of instructions gives detailed procedures and contents for each lesson. It includes estimates of elapsed and projected times for each topic area as an aid to the instructor in maintaining his class on schedule as well as a means of indicating the emphasis to be given to a topic area. In addition, a column to the right of the lesson outline lists training aids appropriate for the particular topic area.

Measurement of Student Achievement

Trainees will be evaluated on both their technical skills and knowledge. Knowledge is evaluated primarily by the final written test. The pass/fail score for this test should be determined by the local training administrator. "Review and Discussion" sessions provide for interim assessment of student assimilation of course contents.

Technical skills are evaluated by a final practical examination. Students should demonstrate proficiency in all skills tested. In addition, the instructor can evaluate student progress in skill attainment in classroom practice sessions as well as in the field training sessions.

APPENDIX

REFERENCES

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