

Primary Care Paramedic

Course Overview

MODULE 1 PREPARATORY

Lesson 1-1 Introduction to Emergency Medical Care

Familiarizes the Paramedic-Basic candidate with the course, learner objectives, and introductory aspects of emergency medical care. Topics covered include the Emergency Medical Services system, roles and responsibilities of the Primary Care Paramedic, professional qualities, quality assurance, and medical direction. A brief discussion on developing effective study habits and student support mechanisms, along with reference information will also be provided to candidates. Finally, issues respecting the well-being of the Paramedic will be covered, including critical incident stress, burnout, etc.

Lesson 1-2 Medical/Legal and Ethical Issues

Explores the scope of practice, ethical responsibilities, advance health care directives, consent, refusals, abandonment, negligence, duty to act, confidentiality, and special situations such as organ donors and crime scenes. A lawyer experienced in medico-legal issues will deliver this lesson.

Lesson 1-3 Overview of Basic Anatomy and Physiology

Designed to enhance the Primary Care Paramedic's knowledge of the human body. An introduction to medical terminology, followed by an overview of body systems, anatomy, physiology and topographic anatomy will be given in this session. Gross anatomy labs will be conducted for the heart, eye, lungs, and kidney; clinical demonstrations will also occur during the dissections.

Lesson 1-4 Baseline Vital Signs and "SAMPLE" History

Teaches assessing and recording of a patient's vital signs and obtaining a "SAMPLE" history.

Emergency Department Nurses and Advanced Life Support Paramedics will deliver this session.

Lesson 1-5 Introduction to Lifting and Moving Patients

Provides students with knowledge of body mechanics, safe lifting and carrying techniques, principles of moving patients, and an overview of equipment. Practical skills of lifting and moving will also be developed during this lesson.

Lesson 1-6 Evaluation: Preparatory Module

Conduct a written and skills evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction.

MODULE 2 AIRWAY/ BCLS

Lesson 2-1 Airway

Teaches airway anatomy and physiology, how to maintain an open airway, pulmonary resuscitation, variations for infants and children. The use of airways, suction equipment, oxygen equipment and delivery systems, and resuscitation devices will be discussed in this lesson.

Lesson 2-2 Practical Skills Lab: Airway

Provides supervised practice for students to develop the psychomotor skills of airway care. The use of airways, suction equipment, oxygen equipment and delivery systems, and resuscitation devices will be included in this lesson

Lesson 2-3 Basic Cardiac Life Support

Reviews the performance standards for basic cardiac life support for infants, children and adults following Canadian Heart & Stroke Foundation guidelines.

Lesson 2-4 Practical Skills Lab: BCLS

Provides supervised practice for students to refine their psychomotor skills of CPR, conscious and unconscious obstructed airway techniques for infants, children and adults following Canadian Heart & Stroke Foundation performance standards.

Lesson 2-5 Evaluation: Airway / BCLS Module

Conduct a written and skills evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction. Students will be tested to Canadian Heart & Stroke Foundation "Basic Rescuer" standards for the BCLS modalities.

MODULE 3 PATIENT ASSESSMENT

Lesson 3-1 Scene Evaluation

Enhance the Primary Care Paramedic's ability to evaluate a scene for potential hazards, determine by the number of patients if additional help is necessary, and evaluate mechanisms of injury or nature of illnesses. This lesson draws on the knowledge of Lesson 1-2. An introduction to mass casualty incidents and "triaging" will also be provided.

Lesson 3-2 Initial Assessment

Provides the knowledge and skills to properly perform the initial assessment. In this session, the student will learn about forming a general impression, determining responsiveness, assessment of the airway, breathing and circulation. Students will also discuss how to determine priorities of patient care. This lesson also draws on lesson 2-4.

Lesson 3-3 Focused History and Physical Exam - Trauma Patients

Describes and demonstrates the method of assessing patients' traumatic injuries. A rapid approach to the trauma patient will be the focus of this lesson.

Lesson 3-4 Focused History and Physical Exam - Medical Patients

Describes and demonstrates the method of assessing patients with medical complaints or signs and symptoms, utilizing the "systems" approach. This lesson will also serve as an introduction to the care of the medical patient.

Lesson 3-5 Detailed Physical Exam

Teaches the knowledge and skills required to continue the assessment and treatment of the patient.

Lesson 3-6 On-Going Assessment

Stresses the importance of trending, recording changes in the patient's condition, and reassessment of interventions to assure appropriate care.

Lesson 3-7 Practical Skills Lab: Patient Assessment

Integrates the knowledge and skills learned thus far to assure that the student has the knowledge and skills of assessment necessary to continue with the management of patients with medical complaints and traumatic injuries.

Lesson 3-8 Evaluation: Patient Assessment Module

Conduct written and skills evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction.

MODULE 4 MEDICAL/BEHAVIORAL EMERGENCIES AND OBSTETRICS/GYNECOLOGY

Lesson 4-1 Introductory Pharmacology

Provides the student with a basic knowledge of pharmacology, providing a foundation for the administration of medications given by the Primary Care Paramedic and those used to assist a patient with self-administration. The pharmacokinetics, indications, contraindications, precautions, and dosage for oxygen, epinephrine, salbutamol, nitroglycerin, and others will be covered in depth.

Lesson 4-2 Respiratory Emergencies

Reviews components of the lesson on respiratory anatomy and physiology. It will also provide instruction on assessment of respiratory difficulty and emergency medical care of respiratory problems including respiratory failure and arrest, congestive heart failure, pulmonary embolism, asthma, emphysema, bronchitis, and the administration of prescribed inhalers.

Lesson 4-3 Cardiovascular Emergencies

Review of the cardiovascular system, an introduction to the signs and symptoms of cardiovascular disease including acute MI, angina, unstable angina, CVA's, TIA's, DVT's.

Lesson 4-4 Diabetes/Altered Level of Mentation

Reviews of the signs and symptoms of altered level of mentation, the emergency medical care of a patient with signs and symptoms of altered mental status and a history of diabetes, use of glucometers and the administration of oral glucose and glucagon.

Lesson 4-5 Allergies

Teaches the student to recognize the signs and symptoms of an allergic reaction, and to assist the patient with a prescribed epinephrine auto-injector.

Lesson 4-6 Poisoning/Overdose

Teaches the student to recognize the signs and symptoms of poisoning and overdose, and initiate appropriate management.

Lesson 4-7 Environmental Emergencies

Covers recognizing the signs and symptoms of heat and cold exposure, as well as the emergency medical care of these conditions. Information on bites and stings will also be included in this lesson.

Lesson 4-8 Behavioral Emergencies

Develops the student's awareness of behavioral emergencies and the management of the disturbed patient. Restraining the combative patient will also be taught in this lesson.

Lesson 4-9 Obstetrics/Gynecology

Reviews the anatomical and physiological changes that occur during pregnancy, demonstrate normal and abnormal deliveries, summarize signs and symptoms of common gynecological emergencies. Special areas addressed include trauma in pregnancy and neonatal resuscitation. Faculty for this component of the course include an Obstetrician and Paramedic NRP (Neonatal Resuscitation) Instructors.

Lesson 4-10 Practical Skills Lab: Medical/Behavioral Emergencies and Obstetrics/Gynecology

Draws on the knowledge and skills learned thus far in this practical lab. Students will be given the opportunity to assess and treat a variety of patients with various medical complaints.

Lesson 4-11 Evaluation: Medical/Behavioral Emergencies and Obstetrics/Gynecology

Conducts a written and skills evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction.

MODULE 5 TRAUMA

Lesson 5-1 Bleeding and Shock

Reviews the cardiovascular system, describes the care of the patient with internal and external bleeding, signs and symptoms of shock (hypoperfusion), and the emergency medical care of shock (hypoperfusion).

Lesson 5-2 Chest, Abdominal & Soft Tissue Injuries

Continues with the information taught in Bleeding and Shock, reviewing the anatomy of the thorax, abdomen and skin and the management of soft tissue injuries and the management of burns. Techniques of dressing and bandaging wounds will also be taught in this lesson. This lesson includes extensive information on chest and abdominal trauma, and this training will be delivered by a Emergency Physician.

Lesson 5-3 Musculoskeletal Care

Reviews of the Musculoskeletal System before recognition of signs and symptoms of a painful, swollen, deformed extremity and splinting are taught in this section.

Lesson 5-4 Injuries to the Head and Spine

Reviews the anatomy of the nervous system and the skeletal system. Injuries to the spine and head, including mechanism of injury, signs and symptoms of injury, and assessment. Emergency medical care, including the use of cervical immobilization devices and short and long back boards will also be discussed and demonstrated by the instructor and students. Other topics include helmet removal, infant and child considerations, and managing increased intracranial pressure.

Lesson 5-5 Practical Skills Lab: Trauma

Provides practice (including "mega-code" scenarios) in the assessment and management of patients with traumatic injuries. This lab draws extensively on information presented and skills

mastered in the Airway Module and Patient Assessment Module.

Lesson 5-6 Evaluation: Trauma Module

Conducts a written and skills evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction.

Module S-1 Pediatrics

MODULE S-1 PEDIATRIC REVIEW

Caring for pediatric patients has been integrated throughout the course, however this module provides an opportunity for students to refine their skills of pediatric assessment and practice critical skills as they relate to ill and injured infants and children.

MODULE 6 REVIEW AND EVALUATION OF CORE COURSE

Lesson 6-1 Evaluation: Core Course

Final cognitive and psychomotor examinations of Core Theory and Skills component of the course.

MODULE 7 ENHANCED SKILLS

Lesson 7-1 Semi-Automated External Defibrillation

The student will learn how to use an S.A.E.D., appreciate the importance of early defibrillation in decreasing mortality and to obtain a basic understanding on what the "shock" that is delivered to the patient actually does to the patient at an electrophysiological level. The student will also learn the difference between the S.A.E.D. and manual defibrillation. ACP and PCP Paramedics and ACLS Instructors will deliver this session.

Lesson 7-2 Practical Skills Lab: SAED

Application and operation of the SAED device will be practiced by the student in “mega-code” style scenarios with an emphasis on the S.A.E.D. protocol, correct application of the device, safe defibrillation and appropriate re-assessments of the patient. In this session the student will be required to demonstrate correct BCLS standards.

Lesson 7-3 EKG Rhythm Recognition - Theory

Review of cardiac anatomy and basic electrophysiology, introduction to cardiac monitoring and an overview of dysrhythmias will be the focus of this training session.

Lesson 7-4 Practical Skills Lab: Rhythm Recognition

This course component will provide the student an introduction to the basic principles of rhythm recognition and allow the student to obtain experience in rhythm recognition both static and dynamic.

Lesson 7-5 Maintenance of Intravenous Lines

The basic principles of IV therapy, along with a discussion of the maintenance , trouble-shooting and reasons for discontinuing peripheral IV lines and IV locks are covered in this lesson.

Lesson 7-6 Care of Self-Retaining Catheters and Nasogastric Tubes

Review of urinary system, discussion of aseptic techniques, and an explanation of self-retaining catheters and NG tubes, two drainage devices commonly encountered in the interfacility transfer of patients.

Lesson 7-7 Evaluation: S.A.E.D. / Rhythm Recognition Module

Conducts a written and skills evaluation to determine the student’s level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction

MODULE 8 Vehicle Operations, Extrication, MCI

Lesson 8-1 Driving Theory

This lesson will focus on the legal aspects of the Highway Traffic Act with regard to the operation of an emergency vehicle, the items that need to be checked on a daily vehicle “check list”, the forces that act on a vehicle in motion including stopping a vehicle.

Lesson 8-2 Driving - Closed Course

This session will take place on a “closed” course where the student will operate a vehicle and practice several exercises using pylons in order to obtain an appreciation of the “feel” of driving an ambulance vehicle. This session will include exercises on stopping, lane changes to avoid an object, skidding, backing using mirrors, etc.

Lesson 8-2 Driving - Open Course

This session will provide the student to operate the ambulance vehicle, in non-emergency fashion, on the street. The purpose of this session is to have the student operate the unit in normal traffic conditions and practice turns, lane changes, driving in reverse and to learn the locations of the Emergency Departments in the City.

Lesson 8-4 PCP Medication Review

The purpose of this session is to review the pharmacological agents that the Primary Care Paramedic may administer to a patient that has not been previously prescribed these specific medications. The protocols for each medication will be reviewed as well as a discussion on the difference in protocols of the Primary Care Provider vs an Emergency Medical Responder. These medications include Nitroglycerine, Ventolin, ASA, Epinephrine, Glucagon and others.

Lesson 8-5 Skill Session - PCP Medications

This session will focus on scenarios that utilize the medications that were discussed in detail in Lesson 8-4. The emphasis will be upon patient assessment and treatments that include the appropriate basic treatment as well as medications that may be utilized.

Lesson 8-6 Traction Splinting - Trauma Skills Review

The student will learn the protocol and correct application technique for a traction splinting device. This session will also provide an opportunity to practice trauma assessments and treatments that we learned earlier in the course. This will allow the student to review specific pieces of equipment that they may feel that they need to review such as K.E.D., helmet removal, spinal immobilization, etc.

Lesson 8-7 Multiple Casualty Incidents

During this training session the student will receive an introduction to the planning an response steps required for a call for service in which “MCI” plans must be utilized. This session will be a combination of “round table” discussion representing a planning session as well as reviewing an actual disaster response

Lesson 8-8 Introduction to Extrication

Provides an introduction to the principles and basic tools of rescue and patient extrication. Emphasis of this module will be on crew member and patient safety during extrication and rescue procedures.

Lesson 8-9 Module 8 Evaluation

Conducts a written and skills evaluation to determine the student’s level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction.

MODULE 9 Documentation / Legal Considerations

Lesson 9-1 Introduction to Documentation

Provides an introduction to the principles documentation including the importance of thorough precise and accurate documentation. The training will emphasize the use of the current Provincial Patient Care report as this is the document that will be used after the student graduates. The style of documenting will follow a “systems assessment” model and the student will be required to utilize appropriate abbreviations.

Lesson 9-2 Review of Legal Considerations in EMS

During this session a review of the legal system and the components of the legal system that a practicing Paramedic may have to deal with in the field. A review of the topics regarding consent to treatment, duty to act, negligence, documentation, etc. will be discussed.

Lesson 9-3 Evaluation: Documentation & Legal Principles Module

Conducts a written evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from this module of instruction.

Lesson 9-4 Evaluation: Total Program Assessment

Conducts a written and skills evaluation to determine the student's level of achievement of the cognitive, psychomotor and affective objectives from modules 1 to 9 of instruction.

MODULE 10 PRIMARY CARE PARAMEDIC CLINICAL PRACTICUM

Lesson 10-1 Emergency Room

Students will be precepted as they apply the skills and knowledge gained in the course to actual cases. Emphasis will be on patient assessment, vital signs, history taking, documentation and communication. Cases permitting, students will practice the skills of airway management, CPR, positive pressure ventilation, etc.

Lesson 10-2 Post Anaesthesia Recovery Room

The student will be "paired" with an experienced nurse preceptor with the overall concept of participating in the care of patient(s) with altered levels of consciousness. The student will also observe patient(s) that have received general anaesthesia so that the student may observe the patient going through various levels of consciousness paying particular attention to airway management.

Lesson 10-3 EMS - Ambulance

Working with a preceptor, students will be provided with the opportunity to participate in the management of actual cases. Students must demonstrate competency over a comprehensive set of clinical objectives based on the National Occupational Competency Profile for Paramedicine.

Emphasis will continue to be on the broad areas of Professional Responsibilities, Communications, Health and Safety, Assessment and Diagnostics, Therapeutics, Integration and Transportation. Clinical sites in both Canada and the United States are made available to students.

Lesson 10-4 Pathology Lab

The student will attend and view a post mortem examination with the purpose of allowing the student to assimilate their knowledge of anatomy and relate this knowledge to the various disease and traumatic conditions discussed during the program.

Lesson 10-5 Main Street Project

This will provide the student an orientation as to how to effectively and safely deal with clients that present in an intoxicated condition.

Lesson 10-6 Stretcher Car Service

The student will be assigned to be precepted by a crew of two people where the student will practice a variety of lifting techniques using various devices to safely lift and move stable patients. This session will prepare the student to lift actual patients in the field setting.

Lesson 10-7 Urgent Care Facility

In the Urgent Care Facility the student will be assigned to an experienced nurse preceptor and the session will focus on obtaining a patient history, an assessment and the appropriate pre-hospital treatment(s), if any, for a patient describing the same chief complaint.

Lesson 10-8 Exit Interview

This session will take place after all students in the class have completed all of their clinical site rotations. The purpose of this interview is to review the student's logbook in order to determine if they have met all of the program objectives or if they require additional clinical time. We will also discuss "how the program" met the needs of the student and to see if any program changes or improvements are required..