

**BELLINGHAM TECHNICAL COLLEGE
EMT-B COURSE**

DEPT/COURSE #: EMS 110

CREDITS: 12

COURSE TITLE: Emergency Medical Technician - Basic

COURSE DESCRIPTION:

This course will train individuals to the EMT-Basic level, per National Standards Curriculum, and abiding by the laws of the State of Washington. Students will be able to recognize, at the Basic Life Support level, how to assess and treat medical and trauma related emergencies.

Prerequisites: Students must be admitted to the EMT Program. Preference is given to students who are sponsored by an affiliated agency.

PHYSICAL REQUIREMENTS:

Per the National Standard Curriculum, aptitudes required for work of this nature are good physical stamina, endurance, and body condition which would not be adversely affected by lifting, carrying, and balancing at times, patients in excess of 125 pounds (250, with assistance). EMT-Basics must be able to work twenty-four hour continuous shifts. Motor coordination is necessary for the well-being of the patient, the EMT-B, and co-worker over uneven terrain.

Washington State Dept. of Health will also inquire if **you have any current medical condition with in any way impairs or limits your ability to provide EMS with reasonable skill and safety.**

COURSE OUTCOME:

- Learn an introduction to emergency medical care, the Emergency Medical Services System, roles and responsibilities to the EMT-Basic, quality improvement and medical direction.
- Gain a general understanding of the emotional aspects of emergency care, stress management, an introduction to CISD (critical incident stress debriefing), scene safety, body substance isolation, and other safety precautions.
- Gain an understanding of the legal aspects of emergency care, and the ethical and legal issues that are a vital element in the actions of performing as an EMT-Basic.
- Know basic anatomy/physiology to the EMT-Basic level per National Standard Curriculum.
- Be able to assess effectively patients' vital signs and perform a SAMPLE history on each patient, using the appropriate methods.
- Safely lift, move, and restrain patients without endangerment of self, patient, or others, using proper body mechanics and techniques.
- Learn and perform basic airway anatomy and physiology as well as learn the necessary skills of airway maintenance and oxygen administration
- Learn the skills of a Trauma Patient Assessment (minor and major), and a Medical Patient Assessment (minor and major), recognize and treat appropriately using the National Standard Curriculum guidelines.
- Understand the components of the Initial, Focused, Rapid, Detailed and On-going Assessments for trauma and medical patients.

- Learn the EMT-Basic pharmacokinetics and proper dosage, assistance with, and administration routes.
- Review the respiratory system and gain an understanding of common respiratory emergencies and perform appropriate treatments
- Review cardiovascular system, learn basic cardiovascular emergencies, and perform appropriate treatments.
- Understand a general overview of diabetes and proper treatment
- Learn possible causes for behavioral changes in patients, and what constitutes an emergency
- Gain an understanding in how to recognize the signs and symptoms of an allergic reaction, and be able to properly assist in the administration of Epinephrine.
- Learn how to recognize the signs and symptoms of poisoning and overdose, and how to properly treat.
- Understand environmental conditions, and how they relate to emergency treatment
- Understand Obstetric and Gynecological emergencies, and be able to perform the necessary and appropriate treatment of these.
- Understand the concept of bleeding and how to control
- Understand the term "shock" or "hypoperfusion", and the types/causes, and effectively treat.
- Be able to treat soft-tissue injuries
- Learn and perform proper musculoskeletal care, immobilization, and other trauma related injuries
- Gain an understanding of the differences in treating infants and children, common medical and trauma related emergencies, and proper treatments
- Gain a basic knowledge of Emergency Medical Service operations, rescue techniques, Triage, and other "operational" issues as they relate to the EMT-Basic
- Demonstrate professionalism by coming to class on time, using appropriate language and communication skills, and behavior traits.

COURSE OUTLINE:

Module I: **Preparatory**
Intro. to emergency medical care
Well-being of the EMT-Basic
Medical/Legal issues
The Human Body
Baseline vitals and SAMPLE history
Lifting and moving patients

Module II: **Airway**

Module III: **Patient Assessment**
Scene size-up
Initial Assessment
Focused History and Physical Exam - Trauma
Focused History and Physical Exam - Medical
Detailed Physical Exam
On-going Assessment
Communications
Documentation

Module IV: **Medical/Behavioral/Obstetrics/Gynecology**

General Pharmacology
Respiratory Emergencies
Cardiac Emergencies
Diabetes/Altered Mental States
Allergies
Poisoning/Overdose
Environmental Emergencies
Behavioral Emergencies
Obstetrics/Gynecology

Module V: **Trauma**
Bleeding and shock
Soft tissue injuries
Musculoskeletal Care
Injuries to the Head and Spine

Module VI: **Infants and Children**

Module VII: **Operations**
Emergency Vehicle Operations
Gaining Access
Overviews

STUDENT PERFORMANCE OBJECTIVES:

Upon completion of this course, the student will be able to:

- Perform mouth-to-mask rescue breathing using supplemental oxygen
- Insert an oropharyngeal airway
- Proper suctioning
- Insertion of a nasopharyngeal airway
- Perform proper Bag-valve mask ventilation
- Properly set-up an oxygen tank, and administer oxygen with the proper device and liter flow through each
- Perform a medical patient assessment
- Perform a trauma patient assessment
- Treat cardiac arrest and use an Automated External Defibrillator
- Properly use an Epinephrine Auto-Injector
- Properly assess a patient's blood glucose level using a glucometer
- Properly assist a patient with a metered-dose inhaler or nebulizer treatment per protocol
- Treat epistaxis with aide of oxymetazoline, when permitted
- Properly administer aspirin per Washington State Protocols
- Properly apply the pneumatic anti-shock garment
- Perform bleeding control and shock management
- Properly immobilize a long bone injury
- Properly immobilize a joint injury
- Properly apply a traction splint to the correct injury
- Immobilize a patient in a lying position
- Immobilize a seated patient

- With a team, comprehensively assess and treat a minor/major Medical patient
- With a team, comprehensively assess and treat a minor/major Trauma patient

METHODS OF INSTRUCTION:

Lecture
 Discussion
 Demonstration
 Practice skills/simulations

STUDENT ASSIGNMENTS/REQUIREMENTS:

- Students must consistently maintain an 80 % on written quizzes and exams. One retake of original exam will be allowed, and an average between first and second attempt must be 80%. If student does not pass exam on second attempt, and average 80%, then a third and final **new** exam will be administered, and the student must achieve 85%, but score will be credited at minimum 80% only.
- Students may not miss any of the mandatory requirements: CPR check-off skills, cardiology and AED operations, mid-term and final comprehensive evaluations, Emergency Department clinical experience
- Students may not miss a cumulative class time over 9 hours, with no mandatory outlined above.
- Students must perform successfully, all required check-off skills before the final "End of Course" final comprehensive Lab.
- Students must keep up on required reading assignments
- Students must abide by the BTC student code of ethics

EVALUATION AND GRADING STANDARDS:

- Students must maintain an 80% average on all in-class tests and quizzes, and successfully pass by a State approved BLS evaluator, the required skills per State requirements. One retake of original exam will be allowed. If the student meets or exceeds the minimum score on the second attempt, it will be credited at the 80% level. If student does not pass exam on second attempt, and average 80%, then a third and final **new** exam will be administered, and the student must achieve 85%, but score will be credited at minimum 80% only. Only 3 retakes total will be allowed.
- Exams are weighted as 80%. The remaining 20% of the total grade will be determined at the end of the course, based on the following criteria:

Class Participation and Behavior:

5%-Consistently comes prepared and on time

- *Consistently comes prepared and on time* means arriving prior to the start of class and being ready to begin at the start of class. *Coming to class prepared* means having completed the assignments.

5%-Demonstrates leadership

- *Demonstrates leadership* means discharging any assigned responsibilities effectively with little or no supervision, assisting the instructor to manage material and

equipment, assisting classmates with learning and retention of knowledge and skills

5%-Demonstrates appropriate communication skills

- *Demonstrates appropriate communication skills* means showing positive conflict resolution and professional communication with instructors, guests, and peers.

5%-Demonstrates positive behavior

- *Demonstrates positive behavior* means displaying a professional demeanor, courteous and eager to learn and sharpen skills; showing a desire for excellence in yourself and your peers.

Students must receive a minimum of a “C” grade in order to be allowed to sit for the Washington State DOH EMT-B written exam.

Grade/Percentage Breakdown:

- **A = 92-100%**
- **B = 85-91%**
- **C = 78-84%**
- **D = 72-77%**
- **F = 68-71%**

All grading criteria will be broken down into point values. Points will be added together, and divided into the total maximum points for the course, based on the number of quizzes and exams given, in order to determine the final course grade. Students must achieve an average of 83%, or a “C” grade for the course in order to be allowed to continue in the program.

Upon completion of the requirements, only sponsored/affiliated students will be allowed to take the Washington State written EMT-B exam, in which they must pass with a 70 %.

REQUIRED STUDENT SUPPLIES AND MATERIALS:

Text: American Academy of Orthopedic Surgeons, *Emergency Care of the Sick and Injured*, 9th Edition

Workbook: Recommended only