**Londonderry Volunteer Rescue Squad**
**2025-2026 Semi-independent AEMT course**.

Wednesdays: October 8, 2025 – March 18, 2026 + One Weekend Day per Month

Book: Advanced EMT – A Clinical Reasoning Approach by Melissa Alexander and Richard Belle. Second Edition Update. ISBN:9780138165277 . Plus an e-book, AEMT Pearson course including Flashcards, Video Lessons, AI Tudor and Exam Prep.

Cost: $900 to cover cost of book and online resources and supplies used in class.

Student qualifications:

1. Current EMS certification at the EMT level (required in order to take the NREMT exam at this level)
2. Minimum of two years experience using the above certification
3. Three references who are either professional colleagues or educational resources (eg prior teacher, preceptor, mentor who can verify
    a. a) practice experience,
    b. b) self motivation, self directed learning style, ability to work independently without close supervision, and c) ability to read the textbook and use on line resources. If the instructor has personal knowledge of the above three areas then written references may be waived. If no personal knowledge of the student, then an interview of the student by the instructor to be sure the student understands the extra demands on the student that this type of course entails is required. Reference letters can be emailed to doug@vermonttimberworks.com .
4. Current (and will not expire for at least a year) AHA BLS card

Class size: Limited to nine students with a goal of having not more than three students per instructor at each practical class. The 3:1 student / instructor ratio will allow for maximum use of the class time to develop strong practical skills. A paramedic or physician's assistant will be available at class or via phone to answer questions.

Attendance requirements: Students are expected to be in class 100% of the time, no exceptions other than student is either in hospital or has covid. If a student does have to miss a class, they must notify the instructor in advance and make arrangements to make up the work. A maximum of two excused classes for extenuating circumstances can be missed. Beyond that, the student will have missed to much material to be successful in the course.

Simulator: LVRS's Resusci- Anne simulator will be used in the course along with volunteer patients to teach and practice AEMT skills.

Course Outline: course is planned to be done over 6 months, meeting regularly on Wednesday nights and one weekend day per month. Instructors can adjust this to more or less as works for them and their students; meetings are 3 hours each and can be done as a 3 hour meeting or as two meetings together for a 7 hour day time meeting with an hour for lunch break (and clear the mind and let the first three hours of material settle in). Wednesday evenings will consist on one hour of chapter review and two hours of practical skills with an emphasis on critical thinking regarding the chapters studied that week and NREMT station practice. The one weekend day per month will be 100% practical skills. Due to time constraints, sometimes skills will be introduced prior to the relevant chapter being studied. Students are expected to review the skills prior to class.

Clinical Time: Before the students start their clinical time, they will have been instructed on and demonstrated the skills they will be practicing. Clinical time can be performed in the ED or with an EMS service pre-approved by LVRS under the guidance of an AEMT or above. Students will keep track of all of their skills and have each skill signed off by the preceptor.

The Vermont Department of Health is adopting the Advanced Emergency Medical Technician (AEMT) Student Minimum Competency Model Guideline, developed by the National Association of State EMS Officials (NASEMSO), as the minimum standard for the verification of AEMT student minimum competencies, with a limited number of exceptions. For the full requirements see the AEMT Student Minimum Competency Model Guideline Document. Clinical requirements are summarized below:

TABLE 1: AGES

| STUDENT MINIMUM COMPETENCY | PATIENT EXPOSURES IN LABORATORY, CLINICAL AND PRE-HOSPITAL FIELD EXPERIENCES |
|---|---|
| Total simulated and live patient exposures during the laboratory, clinical/hospital, and field phase of the AEMT course | Minimum of 50 exposures<br>(a minimum of 20 patient exposures must be in the pre-hospital emergency care setting) |
| Pediatric patients with pathologies or complaints<br>(*birth to 18 years of age)* | Minimum of 10 exposures |
| Adult<br>(*19 to 65 years of age)* | Minimum of 10 exposures |

| | |
|---|---|
| Geriatric<br>(*older than 65 years of age)* | Minimum of 10 exposures |
| SUM OF THE THREE AGE GROUPS | 100%<br>(50 EXPOSURES) |

## TABLE 2: PATHOLOGY/COMPLAINT (CONDITIONS)

| STUDENT MINIMUM COMPETENCY BY PATHOLOGY OR COMPLAINT | LIVE EXPOSURE VS. SIMULATION | EXPOSURE IN LABORATORY, CLINICAL/HOSPITAL, OR FIELD EXPERIENCE |
|---|---|---|
| Trauma* | 3 must be live patient exposure | 5-8 exposures |
| Psychiatric/behavioral* | Simulation permissible, based on competency determined by the Program Director and course Medical Advisor | 5-8 exposures |
| Uncomplicated and complicated Obstetric delivery** | Simulation permissible, based on competency determined by the Program Director and course Medical Advisor | Minimum of 3 exposures |
| Distressed neonate* | Simulation permissible, based on competency determined by the Program Director and course Medical Advisor | Minimum of 3 exposures |
| Cardiac pathologies or complaints*<br>*(For example, acute coronary syndrome, cardiac chest pain)* | 3 must be live patient exposures | 5-8 exposures |
| Cardiac arrest | Simulation permissible, based on competency determined by the Program Director course Medical Advisor | 5-8 exposures |
| Medical neurological pathologies or complaints **(for example, transient ischemic attack, stroke, syncope, or altered mental status presentation)* | 3 must be live patient exposures | 5-8 exposures |

| | | |
|---|---|---|
| Respiratory pathologies or complaints* | 3 must be live patient exposures | 5-8 exposures |
| *(for example, respiratory distress, respiratory failure, respiratory arrest, acute asthma episode, lower respiratory infection)* | | |
| Other medical conditions or complaints*** | 3 must be live patient exposures | 5-8 exposures |
| Sum of the Pathologies/Complaints | N/A | 100% (50 EXPOSURES) |

* Conducts a patient assessment and develops a management plan for evaluation on each patient with minimal to no assistance. Percentages are based on the 50 minimum exposures (live and simulated).

** Should include normal and complicated obstetric deliveries such as breech, prolapsed cord, shoulder dystocia, precipitous delivery, multiple births, meconium staining, premature birth, abnormal presentation, postpartum hemorrhage

*** For example, gastrointestinal, genitourinary, gynecologic, reproductive pathologies, or abdominal pain complaints, infectious disease, endocrine disorders or complaints (hypoglycemia, DKA, HHNS, thyrotoxic crisis, myxedema, Addison, Cushing), overdose or substance abuse, toxicology, hematologic disorders, non-traumatic musculoskeletal disorders, diseases of the eyes, ears, nose, and throat

### Table 3: Minimum Skills Proficiency

| Required Psychomotor Skills | Minimum Successful Motor Skills Assessed on Patients During the Laboratory, Clinical, or Prehospital Field Experience |
|---|---|
| Establishing intravenous access | 20 Successfully placed IVs on live people (minimum of 10 must be on live patients. It is recommended that 5 successful IVs are established in the prehospital setting.) |

| | |
|---|---|
| Administering IV bolus medication | 10<br>(Minimum of 3 live patients in the clinical or prehospital emergency setting- Prehospital setting preferred.) |
| Administering IM injection | 4<br>(A minimum of 1 on a live patient in the clinical or pre-hospital setting) |
| Intranasal medication | 2* |
| SL medication | 2<br>(A minimum of 1 administration in the prehospital emergency setting) |
| Establishing intraosseous access | 4* |
| Intraosseous medication | 2* |
| Performing PPV with BVM | 10* |
| Performing endotracheal suctioning | 2* |
| Inserting supraglottic airway | 10* |
| Automated external defibrillator (AED) | 2* |
| Resuscitation -team based CPR (RA) | 2* |
| End-tidal $CO_2$ monitoring and interpretation of waveform capnography | 10<br>(A minimum of 5 on patients in the prehospital emergency setting) |
| Venous blood sampling | 4* |

*Competency can be verified by means of any combination of simulation, clinical, and pre-hospital experiences.

Class Schedule:

10-8-25: Welcome to Class. Provide state EMS student handbook link and review key points, fill out all paper work, set up email group and any other computer related tasks, discuss course plan/outline/assignments including instructors expectations of students, students expectations of instructors, student accountability for covering the textbook and online assignments and getting online tests in on a timely basis, expectations for participation during class time, online practice tests for NREMT written exam, final testing in the course, NREMT practical and written testing, how to reach the instructors on line and by phone with questions and concerns from the readings – these will be answered to entire class online in a format that will allow for further questions/discussion, provide assignments for entire course and schedule weekend classes to fit the schedules of both the instructors and the students (because the format of this course tends to limit size to 3-9 students this should be a workable way to schedule the remaining classes and fit students and instructors work and family commitments)

10-15-25: Chapter 1 | Introduction to AEMT Practice, Chapter 2 | EMS, Health Care and Public Health Systems. Chapter 3 | Workforce Wellness and Personal Safety. Chapter 4 | Ethical and Medical/Legal Considerations.

10-22-25: Chapter 5 | Ambulance Operations and Responding to EMS Calls Chapter 6 | Communication and Teamwork. Practical: Lifting & Moving Patients, packaging patients, splinting. Stations: Long Bone Immobilization, Joint Immobilization.

10-29-25: Chapter 7 | Medical Terminology. Chapter 8 | Human Body Systems. Practical: Stations: Cardiac Arrest Management. Bleeding Control / Shock Management. Introduction to the Simulator.

October Weekend Day (TBD): Hand washing, glove removal, managing a potential exposure situation, patient care reports, concise radio reports, discussion of ethical issues, review of six rights of medication administration, discussion of the routes of drug administration. IV Introduction. Oral administration, SL administration, IN administration, UDN administration, MDI administration. Stations: IV Therapy, Pediatric IO

11-5-22: Chapter 9 | Life Span Development and Cultural Considerations. Chapter 10 | Pathophysiology: Selected Impairments of Homeostasis. Practical: Patient Assessment – Stations: Oral administration, SL administration, IN administration, UDN administration, MDI administration. Stations: IV Therapy, Pediatric IO

11-12-22: Chapter 11 | Principals of Pharmacology. Chapter 12 | Medication Administration. Chapter 13 | Medications: Practical: IM administration, SC administration, how to draw up drug from ampules and vials. Stations: Medical, Trauma

11-19-22: All Practical: IV set up, IV access, IO access. Station Introduction: IV Therapy, Pediatric IO.

11-26-22: No Class – Happy Thanksgiving!

12-3-22: Chapter 14 | Patient Assessment and Clinical Reasoning. Chapter 15 | Scene Size Up and Primary Assessment. Chapter 16 | Airway Management, Ventilation, Oxygenation. Practical: Listen to and identify lung sounds. Stations: Alternative Airway Device (Supraglottic Airway), Pediatric Respiratory Compromise.

November Weekend Day (TBD). Vital signs, patient assessment, glucometer use, lung sounds, more IV practice, more IO practice. Pulse oximetry, capnography; airway management – head tilt-chin lift, jaw thrust, OPA, NPA, recovery position, I-Gel airway; suction - use of machine, oral, tracheobronchial;

oxygen – changing the tank, humidification, NRM, NC, venture mask, partial rebreather, BVM.

12-10-25: Chapter 17 | Resuscitation: Managing Shock and Cardiac Arrest. Chapter 18 | Vital Signs and Monitoring Devices. Chapter 19 | History Taking, Secondary Assessment, Reassessment. Practical: Medical, Trauma. Cardiac Arrest Management AED.

12-17-25: Chapter 20 | Respiratory Disorders. Chapter 21 | Cardiovascular Disorders. Practical: Patient Assessment. Stations: Supraglottic Airway, Pediatric Respiratory Compromise.

12-24-25: No Class – Happy Holidays!

December Weekend Day (TBD): Code management, patient assessment of patient with respiratory problem, use of MDI, use of UDN, patient assessment of patient with chest pain, administration of ASA and NTG SL, use of Cincinnati stroke scale, FAST ED, assessment of the abdomen, more IV and IO practice. Assessment of patient with altered mental status, glucometer, administration of glucagon and D10 and Narcan, assessment and management of allergic reactions, use of epi pen, treatment of overdose patients. Management of psychiatric patients, more IV practice. Stations: Medical, Trauma.

1-7-26: Chapter 22 | Neurologic Disorders. Chapter 23 | Endocrine Disorders. Chapter 24 | Abdominal and Gastrointestinal Disorders. Chapter 25 | Renal, Genitourinary and Gynecologic Disorders. Practical: Stations: Medical, Supraglottic Airway.

1-14-26: Chapter 26 | Hematologic Disorders. Chapter 27 | Immunologic Disorders. Chapter 28 | Infectious Illnesses. Chapter 29 | Nontraumatic Musculoskeletal and Soft Tissue Disorders. Practical: More IV practice, more IO practice. Stations: IV Therapy, Pedi IO, Medical.

1-21-26: Chapter 30 | Disorders of the Eye, Ear, Nose, Throat and Oral Cavity. Chapter 31 | Mental Illness and Behavioral Emergencies. Chapter 32 | Toxicologic Emergencies. Stations: Medical.

1-28-26: Chapter 33 | Trauma Systems and Incident Command. Chapter 34 | Mechanisms of Injury, Trauma Assessment and Trauma Triage Criteria. Chapter 35 | Soft Tissue Injuries and Burns. Practical Stations: Bleeding & Shock Management. Trauma. Supraglottic Airway.

January Weekend Day (TBD): Morning: Bleeding management – internal, external, and epistaxis; management of closed and open soft tissue wounds, open abdominal wound, impaled object, burns, eye injuries, bleeding from neck wound. Afternoon: management of spinal injuries, helmet removal, management

of sucking chest wounds, management of flail chest, management of abdominal injuries, management of environmental injuries – cold, heat, water, critters. Orthopedics – neurovascular assessment, splinting of long bones, joints, use of various splints including traction and improvised

2-4-26: Chapter 36 | Musculoskeletal Injuries. Chapter 37 | Head, Brain, Face and Neck Trauma. Chapter 38 | Thoracic Trauma. Chapter 39 | Abdominal Trauma. Stations: Trauma, Splinting, Spinal Immobilization.

2-11-26: Chapter 40 | Spine Injuries. Chapter 41 | Environmental Emergencies Chapter 42 | Multi system Trauma and Trauma Resuscitation. Stations : Trauma

2-18-26: Chapter 43 | Obstetrics and Care of the Newborn. Chapter 44 | Pediatric Emergencies. Chapter 45 | Geriatric Emergencies. Practical: Obstetrics and Neonatal Care. Stations: IV Therapy, Pedi IO, Pediatric Airway Compromise.

2-25-26: No Class – School Vacation

February Weekend Day (TBD): review field delivery procedures for normal and breech deliveries, delivery of the placenta, cutting of the umbilical cord, care of the neonate and the post delivery mother; with some pediatric patients visiting, do pedi vs, pedi assessment, pedi spinal injury management, pedi traction splint. practice communication with hearing impaired patient, review how to clean a tracheostomy; lifting and moving techniques – stretcher, stair chair, scoop, transfers bed to cot, bed to chair, wheelchair to cot, lift a patient from the floor; use medical restraints; verbal reports for patient handoff; cleaning the ambulance and other equipment; START triage – adult and pediatric. Stations: Pedi IO, Pediatric Airway Compromise, IV Therapy.

3-4-26: Chapter 46 | Patients with Special Challenges. Chapter 47 | Rescue Operations and Vehicle Extrication, Chapter 48 | Hazardous Materials. Practical: Backboard, Spinal Immobilization during Extrication. Spinal Immobilization.

3-11-23: Chapter 49 | Response to Terrorism and Disasters Practical: Review All Stations

3-16-23: Review. Practical: Review All Stations

3-18-23: Final FISDAP Exam

3-22-23: Test Prep Study Group

March Weekend Day (TBD): Test Prep Study Group. Review All Stations. Course Completion.