

# EMT-P to Paramedic Transition Course

National Emergency Medical Services Education Standards

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## **COURSE REQUIREMENTS:**

**[NOTE: Paramedic training requires simple depth and foundational of all New Education Standards]**

### **Preparatory (120 minutes – 2 hours)**

#### **EMS Systems**

**15 min – Essential**

1. More detailed discussion on patient safety issues, strategies to decrease medical errors

#### **Research**

**5 min – Supplemental**

1. The section is primarily focused on evidence based decisions and how to interpret research; the section on conducting research is gone

#### **Workforce Safety and Wellness**

**10 min – Supplemental**

1. Emphasizes the difference between body substance isolation and personal protective equipment; brief discussion on bariatric issues, neonatal isolettes and medical restraint.
2. The 1998 EMT-P National Standard Curriculum mentioned CISM. The new standard does not use that term instead focusing more on stress management issues.

#### **Documentation**

**15 min – Essential**

1. The Health Insurance Portability and Accountability Act (HIPAA) did not exist when the 1998 EMT-P National Standard Curriculum was authored and now in the curriculum and must be reviewed.

#### **EMS System Communication**

**0 min – Remains the Same**

1. Content changes insufficient to warrant update

#### **Therapeutic Communications**

**15 min – Supplemental**

1. Increased depth of cultural competence issues.

#### **Medical/Legal Ethics**

**20 min – Supplemental**

1. Health Insurance Portability and Accountability Act (HIPAA) did not exist when the 1998 EMT-P National Standard Curriculum was authored; increased depth of discussion regarding advance directives; the term "end-of-life" was not previously used; there is an increased emphasis on end of life issues; increased depth and breadth on ethics

## **Anatomy and Physiology (60minutes)**

### **A&P**

**60 min – Essential**

1. The current recommendation calls for more comprehensive coverage of A&P than provided in the previous 1998 EMT-P National Standard Curriculum. Programs should evaluate their current A&P program to see how much upgrade they need to reach a comprehensive and complex understanding, especially in the cardiovascular, respiratory, and neurological systems

## **Medical Terminology (5minutes)**

### **Terminology**

**5 min - Supplemental**

1. Although not detailed, this content is new to this level.

## **Physiology (0minutes)**

### **Physiology**

**0 min – See Notes Below**

1. The current recommendation calls for more comprehensive coverage of pathophysiology than provided in the previous 1998 EMT-P National Standard Curriculum. Programs should evaluate their current pathophysiology program to see how much upgrade they need to reach a comprehensive and complex understanding, especially in the cardiovascular, respiratory, and neurological systems. NOTE: Content integrated into appropriate sections

## **Lifespan Development (0minutes)**

### **Development**

**0 min -Essential**

1. New information at this level - Mostly covered in previous levels of training

## **Public Health (10minutes)**

### **Topic**

**10 min - Supplemental**

1. Consistent with the EMS Agenda for the Future, there is a greater emphasis on public health issues

## **Pharmacology (80minutes – 1 hour 20 minutes)**

### **Principles of Pharmacology**

**30 min - Essential**

1. Programs should evaluate their current pharmacology program to see how much upgrade they need to reach a comprehensive and complex understanding. All personnel should know their “agency policy” on this issue because any theft and/or diversion of controlled or dangerous drugs will be strongly investigated! Drug Storage and Security, Phases of Medication Activity, Medication Interactions, Toxicity, Drug Terminology, Sources of Drugs and Pharmacological Concepts.

## **Medication Administration**

**5 min – Supplemental**

1. Programs should evaluate their current pharmacology program to see how much upgrade they need to reach a comprehensive and complex understanding

## **Emergency Medications**

**45 min – Essential**

1. In the 1998 EMT-P National Standard Curriculum, there was no list of medications. States and programs are encouraged to add to the list, but should not delete. This list may become dated quickly. With some emergency medications being in short supply, agencies should have alternative drugs within the same classification as their primary, or preferred medications

## **Airway Management, Respiration, and Artificial Ventilation (90minutes– 1 hour30min.)**

### **Anatomy and Physiology**

**30 min - Essential**

1. Confusion exists about the differences between oxygenation, ventilation, and respiration. The Education Standards were organized to attempt to highlight the differences between the concepts. There is a greater emphasis on ventilation and respirations and the importance of artificial ventilation. Research suggests that EMS can make a difference in this area.

### **Airway Management**

**15 min – Essential**

1. Confusion exists about the differences between oxygenation, ventilation, and respiration. The Education Standards were organized to attempt to highlight the differences between the concepts. There is a greater emphasis on ventilation and respirations and the importance of artificial ventilation. Research suggests that EMS can make a difference in this area.

### **Respiration**

**15 min – Essential**

1. Confusion exists about the differences between oxygenation, ventilation, and respiration. The Education Standards were organized to attempt to highlight the differences between the concepts. There is a greater emphasis on ventilation and respirations and the importance of artificial ventilation. Research suggests that EMS can make a difference in this area.

### **Artificial Ventilation**

**30 min – Essential**

1. Confusion exists about the differences between oxygenation, ventilation, and respiration. *The Education Standards* were organized to attempt to highlight the differences between the concepts. There is a greater emphasis on ventilation and respirations and the importance of artificial ventilation. Research suggests that EMS can make a difference in this area.

## **Patient Assessment (60minutes – 1 hour)**

### **Scene Size Up**

**5 min – Essential**

1. No new information here but a re-emphasis on the need for scene safety for everyone present

### **Primary Assessment**

**10 min – Essential**

1. New terminology- Primary Survey/Primary Assessment

### **History Taking**

**10 min – Essential**

1. New terminology – Investigation of the Chief Complaint, Components of a Patient History, Current Health Status, Techniques of History Taking, Standardized Approach to History Taking, Taking History on Sensitive Topics, and Age-Related variations in pediatric and geriatric assessment and management.
2. Geriatric content added

### **Secondary Assessment**

**10 min – Essential**

1. New terminology–Increased level of detail and Techniques of Physical Examination

### **Monitoring Devices**

**25 min – Essential**

1. Includes capnography, chemistry analysis, arterial blood gas interpretation, Continuous ECG monitoring, 12-Lead ECG Interpretation, Carbon Dioxide Monitoring, Basic Blood Chemistry, and other Monitoring Devices
2. As Additional Monitoring Devices Become Recognized as the “Standard of Care” in the Out-of-Hospital Setting, Those Devices Should Be Incorporated Into the Primary Education of Those Who Will Be Expected to Use Them in Practice
3. State regulatory processes may elect to expand, delete, or modify the monitor devices in this section

### **Reassessment**

**0 min – Remain the Same**

1. New terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum

## **Medicine (280minutes– 4 hours 40 minutes)**

### **Medical Overview**

**30 min – Essential**

1. Re-use of the new assessment terminology; emphasis on pathophysiologic basis; updated destination decisions for some medical conditions such as stroke and acute coronary syndrome. Major components of the patient assessment and forming a field impression.

**Neurology****15 min – Essential**

1. The term "demyelinating" was not used in the 1998 EMT-P National Standard Curriculum; more detailed information on stroke assessment and management

**Abdominal and Gastrointestinal Disorders****15 min – Essential**

1. In the 1998 EMT-P National Standard Curriculum, the topic was gastroenterology; new section on mesenteric ischemia, rectal foreign body obstructions and rectal abscess, Specific Injuries/illness: causes, and assessment findings and management for each condition

**Immunology****20 min – Essential**

1. The term anaphylactoid is used here; that term was not used in the 1998 EMT- P National Standard Curriculum; transplant related problems and collagen vascular disease added, Anaphylactoid Reaction, Collagen vascular disease, and Transplant-related problems

**Infectious diseases****15 min – Essential**

1. This section should include updated infectious disease information, for Example methicillin-resistant Staphylococcus aureus, hepatitis, and Acquired Immune Deficiency Syndrome update; should include a discussion on cleaning and sterilizing equipment and decontaminating the ambulance, Standard Precautions, personal protective equipment, and cleaning and disposing of equipment and supplies, Specific diseases and conditions, and Transport decisions including special infection control procedures

**Endocrine Disorders****10 min – Essential**

1. Added long term effects of diabetes and how the disease impacts other conditions, Pathophysiology, causes, incidence, morbidity, and mortality, assessment findings, and management for endocrine conditions.

**Psychiatric****15 min – Essential**

1. Includes new material on excited delirium; other psychiatric conditions are re-categorized with an increase in depth and breadth, Acute psychosis, Agitated delirium, and Specific Behavioral/Psychiatric Disorders.

**Cardiovascular****45 min – Essential**

1. Increased emphasis on anatomy, physiology and pathophysiology; acute coronary syndrome, 12-lead interpretation; updated information on heart failure, Anatomy of the Cardiovascular System, Physiology, Electrophysiology, and Epidemiology. Electrocardiographic (ECG) monitoring, acute coronary syndrome, and heart failure.

**Toxicology****15 min – Supplemental**

1. Includes section on over-the-counter medication toxicology, Medication overdose— Introduction, Pathophysiology, and intoxic agents, risk factors, and complications.

**Respiratory****30 min – Essential**

1. More in-depth evaluation of a patient with respiratory problems, general system, pathophysiology, assessment and management, and specific illness/injuries: causes, assessment findings and management for each condition

**Hematology****30 min – Essential**

1. Reorganized with added section on blood transfusion reactions, Hematological conditions, and Blood Transfusion Complications

**Genitourinary/Renal****10 min – Essential**

1. More detailed discussion of this organ system; urinary catheter management (not insertion)

**Gynecology****15 min Supplemental**

1. Includes brief discussion of sexually transmitted diseases and pelvic inflammatory disease  
REVIEW: Introduction, Physiology. Symptoms and Assessment Findings and General Management

**Non-Traumatic Musculoskeletal Disorders****5 min Supplemental**

1. Added section on disorders of the spine, joint abnormalities, muscles abnormalities, and overuse syndromes, Introduction and Non-traumatic musculoskeletal conditions

**Diseases of the Eyes, Ears, Nose, and Throat****10 min–Supplemental**

1. New section emphasizing major eye, ear, nose, and throat disease, Introduction, General assessment findings and symptoms, General Management, and diseases of the eyes, ears, nose, and throat.

**Shock and resuscitation (10minutes)****Topic****10 min Essential**

1. Reorganized for emphasis, more Pathophysiology. (NOTE: Concepts have been integrated throughout Trauma and Medical)

## Trauma (245minutes 4 hours 10 minutes)

### Trauma Overview

**15 min – Essential**

1. Discussion on the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol and trauma scoring, Identification and Categorization of Trauma Patients

### Bleeding

**30 min - Essential**

1. More detailed discussion: Pathophysiology, Assessment consideration in Shock, Shock Management strategies and considerations, and Bleeding considerations

### Chest Trauma

**45 min Essential**

1. More detailed discussion-- Programs should evaluate their current trauma program to see how much upgrade they need to reach a comprehensive and complex understanding. Review all aspects of trauma to the chest and integrate the Oklahoma Trauma and Triage protocol

### Abdominal and Genitourinary Trauma

**15 min Essential**

1. More detailed discussion--- Programs should evaluate their current trauma program to see how much upgrade they need to reach a comprehensive and complex understanding.

### Orthopedic Trauma

**5 min - Supplemental**

1. More detailed discussion – Programs should evaluate their current trauma program to see how much upgrade they need to reach a comprehensive and complex understanding.

### Soft Tissue Trauma

**5 min - Supplemental**

1. Programs should evaluate their current trauma program to see how much upgrade they need to reach a comprehensive and complex understanding

### Head, Facial, Neck and Spine Trauma

**30 min – Essential**

1. More detail about neck eye, oral and brain injuries; emphasizes the harm of over ventilation in most situations

### Nervous System

**45 min – Supplemental**

1. More detail on brain anatomy; emphasizes the harm of hyperventilation; references the Brain Trauma Foundation; increased emphasis on neurological assessment

### Special Considerations in Trauma

**30 min – Supplemental**

1. All section new or increased emphasis - Trauma in Pregnancy, Pediatric Trauma, Geriatric Trauma, and Cognitively impaired patient



**Environmental Trauma****0 min – Remain the Same**

1. All material at this level represents the same depth and breadth as at the EMT level

**Multi-System Trauma****30 min – Essential**

1. New material at this level; critical thinking skills emphasized, includes discussion of kinematics and blast injury, Kinematics of Trauma, Multi-System Trauma, and Specific injuries related to multi system trauma.

**Special Patient Population (95 minutes– 1 hour35minutes)****Obstetrics****10 min – Supplemental**

1. Added section on hyperemesis gravidarum

**Neonatal Care****30 min - Supplemental**

1. This section is much more detailed than in the previous version.

**Pediatrics****30 min – Essential**

1. This section is much more detailed than in the previous version.

**Geriatrics****15 min -- Supplemental**

1. Added section on Herpes zoster and Specific conditions that occur more frequently in the elderly]

**Patients with Special Challenges****10 min – Supplemental**

1. Added section on bariatric

**EMS Operations(50 minutes)****Principles of Safely Operating a Ground Ambulance****10 min – Essential**

1. All material at this level represents the same depth and breadth as at the EMT level. Risks and Responsibilities of Emergency Response.

**Incident Management****Co or Pre-requisite– Essential**

1. All material at this level represents the same depth and breadth as at the EMT level. Establish and Work within the Incident Management System (A. Entry-Level Students Need to be certified in 1. ICS 100 (Intro to ICS, or equivalent) and 2. FEMA IS-700 (NIMS, An Introduction)

**Multiple Casually Incidents****10 min – Essential**

1. References Centers for Disease Control (CDC) Field Triage Decision Scheme and The National Trauma Triage Protocol Triage\*\*utilize the Florida Trauma Triage materials.\*\*

**Air Medical****10 min – Supplemental**

1. Newmaterialhasbeenadded–Patienttransferissues–InteractionwithAirMedical personnel,scenesafetyandlandingzone(LZ)selectionandprep-SafeAirMedicalOperationsCriteria for Utilizing Air Medical Response

**Vehicle Extrication****5 min – Supplemental**

1. Situational safety has been added Safe **Vehicle Extrication**

**Hazardous Materials Awareness****Co or Pre-requisite– Essential**

1. HAZWOPER(Awareness ONLY) standard added Risk sand Responsibilities of Operating in a Cold Zone at a Hazardous Material or Other Special Incident(Hazardous Waste Operations and Emergency Response (HAZWOPER) standard, 29 CFR 1910.120(q)(6)(i) – “First Responder Awareness Level only] \*\*this can be done as a co-requisite or pre-requistite or as part of the Entry Level course\*\*

**Mass Casually Incidents Due to Terrorism and Disaster****20 min – Essential**

1. All new content - Risks and responsibilities of operating on the scene of a natural or man-made disaster.

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**The following restraint technique has been determined to be harmful and this no longer permitted: forceful restraint in a prone position, with wrists, hands, and ankles tightly tied together (“hobbled”) behind the back.**

**SUMMARY OF PROPOSED TIME [outlined above]****Total 22hrs 40min**

The above hours do not include time for NIMS and HAZWOPER or a requirement of performance of clinical skills. Previous completion of any or all of the above [ICS or HAZWOPER] does not require that they need to be repeated.

This Transition Course MUST equal a minimum of 48 hours to meet the National Registry refresher requirement, and must be reported to OSDH-EMS and National Registry with a certificate which contains the following:

- Student Name
- Transition Course Completion Date
- The certificate must contain the following statement “HAS COMPLETD A STATE APPROVED PARAMEDIC (NRP) TRANSITION COURSE”
- Name of the sponsoring agency
- Signature of the individual responsible for the training.

## SKILL CONSIDERATIONS:

### Discontinued:

- Pressure points and elevation for hemorrhage control
- Umbilical Vein Access
- Urinary Catheterization

### New

- Use of BiPAP/CPAP
- Waveform Capnography
- Monitoring and Management of a chest tube
- Assist in the insertion of a chest tube
- Performing a percutaneous circothyrotomy
- Accessing indwelling catheters and implanted central IV ports
- Central Line Monitoring
- Initiation of intraosseous infusion in all patients (previously used IOs on children only)
- Intranasal medication administration (1998 Paramedic limited to intranasal decongestants)
- Eye irrigation with the Morgan® lens
- Initiation and monitoring of thrombolytic medication
- Blood chemistry analysis (includes psychomotor skills involved with collection of blood for analysis [point of care testing] and the cognitive material necessary to understand implications of results).
- Obtaining a pulse oximetry value.

## Vertical Curriculum for the EMT-P to Paramedic Transition Course

### Minutes Recommendation

SECTION	TOPIC	LEC	LAB	NAEMSO	RATIONALE
Preparatory	EMS Systems	15	0	15	More detailed discussion on patient safety issues, strategies to decrease medical errors.
	Research	5	0	5	New content area. Brief overview to explain purpose & process.
	Workforce Safety and Wellness	10	0	10	Emphasizes the difference between body substance isolation and personal protective equipment; brief discussion on bariatric issues, neonatal isolettes and medical restraint
	Documentation	15	0	15	Review HIPAA and implications for EMS of the Affordable Care act.
	Medical Legal Ethics	60	0	60	More discussion on advanced directives and end-of-life issues.
Pathophysiology	Anatomy and Physiology	60	0	60	Ensuring a comprehensive and complex understanding of cardiovascular, respiratory and neurological systems.
Pharmacology	Principles of Pharmacology Emergency Medications	30 30	15	75	Ensuring a comprehensive and complex understanding of pharmacology and medication administration to minimize medication errors.
Airway Management, Respiration & Artificial Ventilation	Airway Management, Respiration & Artificial Ventilation	30	60	90	Drug assisted intubation and mechanical ventilators new content.
Patient Assessment	Patient Assessment	30	30	60	Ensure understanding 12 lead EKGs (obtaining, interpreting) and waveform capnography.
Medicine	Immunology	20	0	20	New term of anaphylactoid introduced. Additionally discussion of transplant related problems and collagen vascular disease added.
	Endocrine Disorders	20	0	20	Discussion on long-term effects of diabetes.
	Medical Overview	30	0	30	Review of destinations decisions for some medical conditions.
	Respiratory	30	30	30	More in-depth evaluation of respiratory problems.
	Hematology	30	0	30	Section on blood transfusion reactions.
	Abdominal and Gastrointestinal	15	0	15	New section on mesenteric ischemia, rectal foreign body obstructions and renal abscess.
	Psychiatric	30	0	15	New material on excited delirium syndrome.
	Cardiovascular	45	0	45	Recognition and interventions of acute coronary syndrome to include early hospital notification with pertinent information (age, cardiologist, STEMI, etc.).

Trauma	Trauma Overview	15	0	15	New content area on trauma systems and destination triage.
	Chest Trauma	0	0	45	No new concepts or procedures.
	Head, Face, Neck and Spinal Trauma	30	0	30	Expanded knowledge on closed head injury management with appropriate ventilation using waveform capnography.
	Multi Systems Trauma	30	0	30	Critical thinking skills emphasized. Additional information on blast injuries.
EMS Operations	Principles of Safely Operating a Ground Ambulance	0	0	10	Not needed, driving safety programs are very common for Michigan EMS services.
	Multi Casualty Incidents	20	0	10	Overview of triage scheme SALT.
	Mass Casualty Incidents Due to Terrorism and Disaster	20	0	20	Risks and responsibilities when operating on the scene of a disaster.
Special Patient Populations	Patients with Special Challenges	30	0	30	Overview of pediatrics because of low volume with potential high risk. Provide leads to pediatric specialty course (e.g. PEPP, PEARS, and PALS).
New Skills	BIPAP/CPAP, waveform capnography, monitoring and management of chest tubes, percutaneous cricothyrotomy, accessing indwelling catheters, intranasal medication, eye irrigation with Morgan lens.	60	60	None	New skills.
Removed Skills	Pressure points & elevation for hemorrhage control, Umbilical vein access, Urinary catheterization the "hobbled" restraint technique is no longer permitted.	10			Mention of these would be a good reminder and maybe new information.
	<b>TOTAL MINUTES</b>	<b>735</b>	<b>225</b>	<b>800</b>	
	<b>TOTAL HOURS</b>	<b>12.25</b>	<b>3.75</b>	<b>13.3</b>	
	<b>TOTAL HOURS</b>	<b>16 combined</b>			