Trauma Management (EMSP 1455_1AO)

INSTRUCTOR CONTACT INFORMATION

Instructor:	Jolene Monse Thompson
Email:	jmonse@lit.edu
Office Phone:	409-247-5090
Office Location:	MPC 255
Office Hours:	Upon Request

CREDIT
3 Semester Credit Hours (2 hours lecture, 2 hours lab)

MODE OF INSTRUCTION
Hybrid

PREREQUISITES
EMT-Basic or Advanced

CO-REQUISITES
EMSP 2262 – Clinical – Emergency Medical Technician-Paramedic
EMSP 2444 – Cardiology

COURSE DESCRIPTION
Knowledge and skills in the assessment and management of patients with traumatic injuries.

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

- Integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition for an acutely injured patient.
- Complex depth, comprehensive breadth of pathophysiology, assessment and management of the trauma patient including trauma scoring and transport decisions.
- Complex depth, comprehensive breadth of pathophysiology, assessment, and management of bleeding.
- Complex depth, comprehensive breadth of pathophysiology, assessment, and management of chest trauma including;
    - Traumatic aortic disruption
    - Pulmonary contusion
    - Blunt cardiac injury

    - Hemothorax
    - Pneumothorax
    - Cardiac tamponade
    - Rib fractures
    - Flail chest
    - Commotio cordis
    - Tracheobronchial disruption
    - Diaphragmatic rupture
    - Traumatic asphyxia
- Complex depth, comprehensive breadth of pathophysiology, assessment, and management of abdominal and genitourinary trauma including;
    - Vascular injury
    - Solid and hollow organ injuries
    - Blunt versus penetrating mechanisms
    - Evisceration
    - Retroperitoneal injuries
    - Injuries to the external genitalia
- Fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma to include;
    - Pediatric fractures
    - Tendon lacerations/transections/rupture
    - Compartment syndrome
- Complex depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma to include;
    - Upper and lower extremity orthopedic trauma
    - Open fractures
    - Closed fractures
    - Dislocations
- Complex depth, comprehensive breadth of pathophysiology, assessment, and management of environmental emergencies to include;
    - Near-drowning
    - Temperature-related illness
    - Bites and envenomation
    - Dysbarism
    - Electrical injury
    - High altitude illness
- Complex depth, comprehensive breadth of pathophysiology, assessment, and management of multi-system trauma to include;
    - Multi-system trauma
    - Blast injuries

- Use universal precautions and body substance isolation (BSI) procedures during medication administration.
- Demonstrate the assessment and management of a patient with signs and symptoms of external hemorrhage.
- Demonstrate how to apply a commercial tourniquet.
- Demonstrate the assessment and management of a patient with signs

and symptoms of internal hemorrhage.
- Demonstrate the assessment and management of a patient experiencing hemorrhagic shock.
- Demonstrate the assessment and management of a patient with signs and symptoms of soft-tissue injuries.
- Demonstrate how to care for a burn.
- Demonstrate the emergency medical care of a patient with a thermal burn.
- Demonstrate the emergency medical care of a patient with a thermal inhalation burn.
- Demonstrate the emergency medical care of a patient with a chemical burn of the skin.
- Demonstrate the emergency medical care of a patient with an inhalation burn from other toxic chemicals.
- Demonstrate the emergency medical care of a patient with a chemical burn of the eye.
- Demonstrate the emergency medical care of a patient with an electrical burn.
- Demonstrate the emergency medical care of a patient with a radiation burn.
- Demonstrate the care of a patient who has a penetrating eye injury.
- Demonstrate the stabilization of a foreign object that has impaled the eye.
- Demonstrate irrigation of a patient's eye using a nasal cannula, bottle, or basin.
- Demonstrate how to control bleeding from a neck injury.
- Demonstrate how to remove a helmet from a patient with a suspected head or spinal injury.
- Describe the steps to take in the assessment of a patient with suspected chest trauma.
- Demonstrate the management of a patient with a tension pneumothorax using needle decompression.
- Demonstrate proper emergency medical care of a patient who has experienced a blunt abdominal injury.
    - Demonstrate how to apply a dressing to an abdominal evisceration wound.
    - Demonstrate proper emergency care of a patient who has a penetrating abdominal injury with an impaled object.
    - Demonstrate how to treat a patient with heat cramps.
    - Demonstrate how to treat a patient with heat exhaustion.
    - Demonstrate how to treat a patient with heatstroke.

REQUIRED TEXTBOOK AND MATERIALS

EMS Program Student Handbook
Nancy Caroline's Emergency Care in the Streets 9th; ISBN: 9781284274004
Platinum Planner
EMS Testing

ATTENDANCE POLICY

Three absences are allowed. If a student is tardy to class or departs early two (2) times, it will be equal to one (1) absence. Each absence beyond three absences will result in a 5 point deduction from your final grade.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16- week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face- to-face class.

COURSE CALENDAR

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
6/3/25	**Lecture** **Ch 30, 31**		
6/4/25			Ch 30 Knowledge objectives Ch 30 Pre-test
6/5/25	**Lecture** **Ch 32, 33**		
6/8/25			Ch 30 Post test Assessment in action
6/10/25	**Lecture** **Ch 34, 35**		
6/11/25			Ch 30 Discussion Ch 30 Workbook Ch 31 Knowledge objectives Ch 31 Pre-test
6/12/25	Class day		
6/15/25			Ch 30 Test Ch 31 Post test Ch 31 Affective assessment
6/17/25	**Scenarios**		
6/18/25			Ch 31 Discussion Ch 31 Workbook Ch 32 Knowledge objectives Ch 32 Pre-test
6/19/25	Campus Closed		
6/22/25			Ch 31 Test Ch 32 Post test Ch 32 Affective assessment
6/24/25	Class day		
6/25/25			Ch 32 Discussion Ch 32 Workbook Ch 33 Knowledge objectives Ch 33 Pre-test
6/26/26	Class day		
6/29/25			Ch 32 Test Ch 33 Post test Ch 33 Affective assessment

7/1/25	**Scenarios**		
7/2/25			Ch 33 Discussion Ch 33 Workbook Ch 34 Knowledge objectives Ch 34 Pre-test
7/3/25	**Scenarios**		
7/6/25			Ch 33 Test Ch 34 Post test Ch 34 Affective assessment
7/8/25	Class Day		
7/9/25			Ch 34 Discussion Ch 34 Workbook Ch 35 Knowledge objectives Ch 35 Pre-test
7/10/25	Class Day		
7/13/25			Ch 34 Test Ch 35 Post test Ch 35 Affective assessment
7/15/25	**Lecture** **Ch 36, 37**		
7/16/25			Ch 35 Discussion Ch 35 Workbook Ch 36&37 Knowledge objectives Ch 36&37 Pre-test
7/17/25	**Scenarios**		
7/20/25			Ch 35 Test Ch 36&37 Post Test Ch 36&37 Assessment in Action
7/22/25	Class Day		
7/23/25			Ch 38 Knowledge objectives Ch 38 Pre-test
7/24/25	Class Day		
7/27/25			Ch 36&37 Test Ch 38 Post Test
7/29/25	**Lecture** **Ch 38, 39**		
7/30/25			Ch 38 Discussion Ch 38 Workbook Ch 39 Knowledge objectives Ch 39 Pre-test

7/31/25	Class Day		
8/3/25			Ch 38 Test Ch 39 Post Test Ch 39 Assessment in Action
8/5/25	Review		
8/6/25			Ch 39 Discussion Ch 39 Workbook
8/7/25	Review		
8/10/25			Ch 39 Test
8/12/25	Final & Affective Eval		

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Affective Evaluation	15%
Chapter Quiz	30%
Discussions 12.5% & Assignments	12.5%
Final Exam	30%

GRADING SCALE

90 – 100	A
84 – 89	B
75 – 83	C
70 – 74	D
0 – 69	F

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimum-computer-requirements. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at Special Populations - Lamar Institute of Technology (lit.edu).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home

page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

1. Computers, telephones, headphones, and any other electronic devices must be turned off while in class or used only with permission of the instructor.
2. Do not bring children to class.
3. Late assignments will be accepted on a case by case basis.
4. Tests. Students that miss a test are not allowed to make up the test. Students that miss a test will receive a grade of '0'.
5. Additional class policies as defined by the EMS Program Student Handbook.

BLACKBOARD ANNOUNCEMENTS

1. Announcements in Blackboard are posted to the Announcements web page that you see when you log into class. They are important, so be sure to read them.
2. Announcements are also emailed to your Blackboard email, which you can check at MyLIT.

MY RESPONSE TIME

1. I will response withing 24-48 hours.
2. **The best way to reach your instructor is through LIT Email jmonse@lit.edu**

Course Outline

A. Welcome to LIT EMS Advanced Program
   1. Introduction of EMS Staff, Instructors and students
   2. EMS program policies

B. Trauma Systems and Mechanism of Injury
   1. Trauma, Energy, and Kinetics
   2. Blunt Trauma
   3. Penetrating Trauma
   4. Blast Injuries
   5. Multisystem Trauma
   6. Trauma Score
   7. Revised Trauma Score
   8. General Assessment of Trauma
   9. Scene Size-up
   10. Primary Assessment
   11. History Taking
   12. Secondary Assessment
   13. Reassessment
   14. Management of Trauma

C. Bleeding
   1. Anatomy and Physiology
   2. Pathophysiology of hemorrhage
   3. Shock
   4. Patient Assessment
   5. Scene Size Up
   6. Primary Assessment
   7. History Taking
   8. Secondary Assessment
   9. Reassessment
   10. Emergency Medical Care of Bleeding

D. Soft-Tissue Trauma
   1. Incidence, Mortality, and Morbidity
   2. Structure and Function of the Skin
   3. General Pathophysiology: Closed versus Open Wounds
   4. Wound Healing
   5. Patient Assessment
   6. Scene Size Up
   7. Primary Assessment

8. History Taking
9. Secondary Assessment
10. Reassessment
11. Emergency Medical Care
12. Pathophysiology, Assessment, and Management of Specific InjuriesPathophysiology, Assessment, and Management of Soft-Tissue Injuries to Specific Anatomic Sites

E. Burns
1. Anatomy and Physiology of the Skin
2. Pathophysiology
3. Patient Assessment
4. Scene Size Up
5. Primary Assessment
6. History Taking
7. Secondary Assessment
8. Reassessment
9. Emergency Medical Care
10. Pathophysiology, Assessment, and Management of Specific Burns
11. Management of Burns in Pediatric Patients
12. Management of Burns in Geriatric Patients
13. Long-Term Consequences of Burns

F. Face and Neck Trauma
1. Anatomy and Physiology
2. Patient Assessment
3. Scene Size Up
4. Primary Assessment
5. History Taking
6. Secondary Assessment
7. Reassessment
8. Emergency Medical Care
9. Pathophysiology, Assessment, and Management of Face Injuries
10. Pathophysiology, Assessment, and Management of Eye Injuries
11. Pathophysiology, Assessment, and Management of Ear Injuries
12. Pathophysiology, Assessment, and Management of Oral and Dental Injuries
13. Pathophysiology, Assessment, and Management of Injuries to the Anterior part of the Neck
14. Pathophysiology, Assessment, and Management of Spine Trauma
15. Injury Prevention

G. Head and Spine Trauma
1. Anatomy and Physiology
2. Patient Assessment
3. Scene Size Up
4. Primary Assessment
5. History Taking
6. Secondary Assessment

7. Reassessment
8. Emergency Medical Care
9. Pathophysiology, Assessment, and Management of Head Injuries
10. Pathophysiology, Assessment, and Management of Scalp lacerations
11. Pathophysiology, Assessment, and Management of Spine Injuries
12. Non-traumatic Spinal Conditions

H. Chest Trauma
1. Anatomy
2. Physiology
3. Pathophysiology
4. Patient Assessment
5. Scene Size Up
6. Primary Assessment
7. History Taking
8. Secondary Assessment
9. Reassessment
10. Emergency Medical Care
11. Pathophysiology, Assessment, and Management of Chest Wall Injuries
12. Pathophysiology, Assessment, and Management of Lung Injuries
13. Pathophysiology, Assessment, and Management of Myocardial Injuries
14. Pathophysiology, Assessment, and Management of Vascular Injuries
15. Pathophysiology, Assessment, and Management of other Thoracic Injuries

I. Abdominal and Genitourinary Trauma
1. Anatomy and Physiology
2. Mechanism of Injury
3. General Pathophysiology
4. Patient Assessment
5. Scene Size Up
6. Primary Assessment
7. History Taking
8. Secondary Assessment
9. Reassessment
10. Emergency Medical Care
11. Pathophysiology, Assessment, and Management of Specific Injuries
12. Pathophysiology, Assessment, and Management of Injuries to the Male Genitalia
13. Pathophysiology, Assessment, and Management of Injuries to the Female Genitalia

J. Orthopaedic Trauma
1. Anatomy and Physiology of the Musculoskeletal System
2. Patterns and Mechanisms of Musculoskeletal Injuries
3. Pathophysiology
4. Patient Assessment
5. Scene Size Up
6. Primary Assessment
7. History Taking
8. Secondary Assessment

9. Reassessment
10. Emergency Medical Care
11. Pathophysiology, Assessment, and Management of Pediatric Fractures
12. Pathophysiology, Assessment, and Management of Complications of Musculoskeletal Injuries
13. Pathophysiology, Assessment, and Management of Specific Fractures
14. Pathophysiology, Assessment, and Management of Ligament Injuries and Dislocations
15. Pathophysiology, Assessment, and Management of Non-Traumatic Musculoskeletal Disorders

K. Environmental Emergencies
1. Anatomy and Physiology
2. Pathophysiology, Assessment, and Management of Heat Injuries
3. Pathophysiology, Assessment, and Management of Cold Injuries
4. Pathophysiology, Assessment, and Management of Drowning
5. Pathophysiology, Assessment, and Management of Diving Injuries
6. Pathophysiology, Assessment, and Management of Lightning Strike
7. Pathophysiology, Assessment, and Management of Envenomation: Bites and Stings