

**WILLIAM RAINEY HARPER COLLEGE**  
**HEALTH CAREERS DIVISION**  
**NORTHWEST COMMUNITY HEALTHCARE PARAMEDIC PROGRAM**  
**COURSE SYLLABUS**

EMS	213	PARAMEDIC TRAUMA/SPECIAL POPULATIONS/ EMS OPs	(6-1)	6
Course Prefix	Course Number	Course Title	(Lec-Lab)	Semester Hours

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Dates: February 5 –March 1, 2018

Time & location of classes: Northwest Community Hospital -800 W. Central Ave.

Class days: 9 am – 5 pm; rooms LC 3&4 – see class schedule for specific class vs. clinical dates

**Prerequisite:** EMS 212 with a grade of C or better

**Co-requisite:** EMS 218: Hospital clinical rotations

### **COURSE DESCRIPTION**

Presents a wide scope of trauma emergencies, special patient populations, and those with physical challenges. It concludes with field experts presenting the EMS response to multiple patient incidents and the incident management system, hazardous materials awareness, active shooter incidents/weapon safety, and ambulance operations. This course must be passed to continue in the program. Content and objectives are mapped to the National EMS Education Standards.

### **TOPICAL OUTLINE**

- I. Introduction to kinematics and the forces producing injury
- II. Trauma Assessment, general management, and transport decisions
- III. Systems trauma: Head/traumatic brain injury, facial, ocular, neck, spine, thoracic, abdominal, genitourinary, musculoskeletal, skin and soft tissue
- IV. Special populations: patients experiencing interpersonal violence, neglect, poverty, homelessness; bariatric challenges; vision, hearing or speech deficits, autism spectrum disorders, cancer, cerebral palsy, chronic neurological or muscular debilitating conditions, previous brain injury, terminal illness; chronic care, and those that are technology assisted
- V. Emergency preparedness and response to all hazards and multiple patient incidents; rescue operations
- VI. Principles of safely operating a ground ambulance

### **METHODS OF PRESENTATION**

1. Lecture; student and instructor-led discussions
2. Student-centered learning activities: Case studies; simulations, scenarios, role playing
3. Guided practice: Demonstrations; return demonstrations in precepted lab environment
4. Independent practice: Homework questions and collaborative practice: group assignments

### **STUDENT OUTCOMES:** *(The student will...)*

1. integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.
2. demonstrate complex depth and comprehensive breadth of understanding of the etiology, pathophysiology, assessment and management of trauma patients with the following:
  - Single and multi-system caused by a wide range of mechanisms as informed by the kinematics of the injury; trauma scoring; and appropriate patient disposition
  - Bleeding and external hemorrhage control
  - Traumatic aortic disruption, pulmonary contusion, blunt cardiac injury, hemothorax, open, simple and tension pneumothorax, cardiac tamponade, rib fractures, flail chest, commotio cordis, tracheobronchial disruption, diaphragmatic rupture, and traumatic asphyxia
  - Abdominal vascular injury, solid and hollow organ injuries, blunt versus penetrating mechanisms, evisceration, retroperitoneal injuries, and injuries to the external genitalia

- Upper and lower extremity orthopedic trauma, open fractures, closed fractures, dislocations, sprains/strains, pelvic fractures, amputations/replantation; crush syndrome, compartment syndrome, and suspension injury
  - Wounds: open and closed: avulsion, bite, contusion, hematoma, impaled objects (including taser barbs), incision, laceration, and puncture; high pressure injection
  - Burns: thermal, chemical, electrical, inhalation, UV, radiation
  - Skull fractures, penetrating neck trauma, laryngotracheal injuries, spine trauma, mandibular fractures
  - Traumatic brain injury, spinal cord injury, spinal shock, and neurogenic shock
  - Trauma in the pregnant, geriatric patient and cognitively impaired patient
3. demonstrate fundamental depth and foundational breadth of understanding of the etiology, pathophysiology, assessment and management of trauma patients with the following:
    - Pediatric fractures, tendon laceration/transection/ rupture (Achilles and patellar),
    - Unstable facial fractures, open and closed globe ocular injuries/orbital fractures, perforated tympanic membrane; foreign objects, dental trauma
    - Cauda equina syndrome, nerve root injury, peripheral nerve injury
  4. integrate assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special challenges including, but not limited to: abuse, neglect, homelessness, poverty, bariatrics, technology dependent, hospice/ terminally ill, tracheostomy care/dysfunction, homecare, sensory deficit/loss and developmental disability.
  5. demonstrate complex depth and comprehensive breadth of understanding relative to the risks and responsibilities and operational roles to ensure patient, public, and personnel safety when participating in an emergency response; multiple patient incidents; operating at the scene of a natural or man-made disaster; integrating with an aeromedical service; accessing patients from entrapment; and responding to incidents with hazardous materials, active shooter and/or deadly force weapon.
  6. demonstrate psychomotor mastery at the precision level in assessing patients following trauma and those with special challenges; obtaining and using information from patient monitoring devices including (but not limited to) readings for noxious gasses, radiation, and/or hazardous materials; external hemorrhage control including hemostatic dressings and tourniquets; decontamination procedures; using autoinjectors for cholinergic poisonings; primary and secondary triage and use of the state-approved triage tag; applications of splints and bandages; selective spine precautions; eye irrigation and burn wound care; troubleshooting a tracheostomy or stoma with obstruction or tube dislodgement; transporting a patient with an NG/OG or gastric tube; central line; CSF shunt; or indwelling urinary catheter using National Scope of Practice models, those adopted by IDPH, and as specified in the Program Lab Manual.
  7. characterize the professional behaviors stated in the program affective objectives.

### **METHODS OF EVALUATION**

- Formative evaluation of student performance in all domains of learning
  - Cognitive objectives: quizzes; modular written examination
  - Psychomotor objectives: Precepted labs; practical exams
  - Affective objectives: Observation against criterion based rubric
- Student evaluation of program and faculty

**COURSE GRADING POLICIES:** Specified in the NCH Paramedic Program Student Handbook.

### **ASSIGNMENTS**

- Daily: assigned text, handout readings are listed on each topical outline
- Homework questions for each topic should be completed as independent that transitions to collaborative study. Squad homework officers will inspect completed questions every morning and note any incomplete work.
- Individual or group projects/assignments/presentations are defined in the class Academic Calendar.

### **ATTENDANCE POLICY**

Because of the critical nature of the content and full time schedule of the course, students are expected to attend every class, lab and exam on the days and times they are offered. If a student misses three full days of class or is tardy three or more times, they will be subject to disciplinary action which may include dismissal from the program. Specific class attendance requirements are specified in the NCH Paramedic Program Student Handbook.

**MAKE UP EXAMS/ASSIGNMENTS:** Specific information relative to missed or late exams, quizzes or assignments is contained in the NCH Paramedic Program Student Handbook.

**STUDENT BEHAVIOR:** Information relative to civil, courteous and professional behaviors including, but not limited to, integrity, honesty, empathy, self-motivation, appearance and personal hygiene, self-confidence, communication, time management, teamwork, diplomacy, attitude, respect, patient advocacy, and use of electronic and social media, is specified in the NCH Paramedic Program Student Handbook posted at [www.nwcemss.org](http://www.nwcemss.org) and Harper College Student Handbook posted at <https://myharper.harpercollege.edu/pls/portal/url/ITEM/937272F78B81316DE0402E0A0A2A3059>.

Information relative to guided study, corrective coaching, disciplinary procedures, and student resources is also included in the NCH Paramedic Program Student Handbook.

**TEXTBOOK:** Bledsoe, B.E., Porter, R.S., Cherry, R.A. (2017). Paramedic Care: Principles & Practice, Vols. 1-5 (5<sup>th</sup> Edition). New York, Pearson. ISBN-13: 978-0134575964; ISBN-10: 0134575962

**EQUAL OPPORTUNITY:** The Paramedic Program does not discriminate on the basis of race, color, religion, sex, national origin, ancestry, age, marital status, sexual orientation, disability, or unfavorable discharge from military service as long as the candidate meets statutory requirements of licensure as a paramedic and is able to perform all the essential functions of the paramedic profession during the course with or without reasonable accommodation.

**STUDENTS WITH DISABILITIES and Academic Accommodations:** If you have a disability (learning, ADHD, physical, psychological or other) and may require any accommodation during this course, please contact the Course Program Director at the *beginning* of the course to discuss. Students with disabilities must contact Access and Disability Services (ADS) to discuss approval of reasonable accommodations. Any student already connected with ADS should provide the Course Program Director a copy of your approved Accommodation Plan. Access and Disability Services is located in Building D, D119; on the Harper College campus; 847.925.6266 (voice) or 224.836.5048 (videophone for deaf and hard of hearing callers only).

**STUDENT E-MAIL NOTIFICATIONS:** All notifications related to student registration or other Harper College business activities are sent to students via G-mail account that is assigned to students upon registration. Students access the G-mail account via an icon in the student portal (where you registered for classes). Please check this e-mail frequently. To forward e-mails from this account to a personal e-mail account please follow the instructions for forwarding Harper e-mail available to <http://harper.blackboard.com/>. Students must provide the NWC EMSS office with an e-mail address to be used for all direct correspondence relative to class academic and clinical activities.