

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 of class: February 6 – March 3, 2023 (See Academic Calendar)

Location all F2F classes, labs, & exams: NCH Learning Center/auditorium | Virtual contingency (Zoom)

Prerequisite: EMS 212 with a grade of C or better

Co-requisite: EMS 218: Hospital clinical rotations

COURSE DESCRIPTION

This course 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 assailant incidents/weapon safety, and ambulance operations. EMS 213 must be passed to continue in the program. Content and objectives are mapped to the 2021 National EMS Education Standards and National EMS Scope of Practice Model.

TOPICAL OUTLINE

- I. Kinematics and the forces producing injury; hypovolemic shock
- 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; burns from multiple etiologies
- IV. Special populations: patients experiencing poverty, homelessness; bariatric challenges; learning, developmental, 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; multiple patient incidents; rescue operations
- VI. Principles of safely operating a ground ambulance

METHODS OF PRESENTATION

- Students are engaged in meaningful outcome-focused education to stimulate self-reflection, higher order thinking, the ability to problem solve, and apply instructional theory into practice. The program employs multimodal teaching strategies: interactive lecture, instructor and student-led discussions, Socratic questioning, mind maps, case studies, scholarly writing, reflective journalizing, debates, reading for meaning, simulations, scenarios, role playing, problem -based learning, games, and independent, collaborative, and guided study.
- Guided practice: Demonstrations (whole-part-whole) and return demonstrations in precepted lab environment
- Independent practice: Reading handouts, completing homework questions and projects, and MyLab Brady assignments if necessary
- Collaborative practice; group assignments
- Educational methods are enhanced by the use of AV aids, electronic media, white boards, flip charts, polling questions, student handouts, and published literature.

STUDENT OUTCOMES:

The Paramedic program strives to develop students on an intellectual and personal basis. Quality EMS education impacts knowledge, skills, and attitudes (KSAs) by developing a positive self-image, encouraging accountability and team interdependency, increasing the ability to cope effectively with change and ambiguity, and developing a structure for principled reasoning, moral judgment, and ethical behavior.

EMS Outcomes-based Education leads to:

- Lifelong learners
- Knowledgeable persons with deep understanding
- Complex thinkers with intellectual flexibility
- Reflective and self-directed learners
- Active investigators
- Effective communicators
- Creative persons

The PM Program promotes autonomy and independence; builds community and shared purpose; and teaches 21st century skills: Critical thinking, communication, collaboration, creativity, and innovation

Proximal outcomes: Academic and growth mindset, social-emotional skills and competencies

Intermediate outcomes: Academic perseverance; effective learning strategies and academic behaviors

Long-term outcomes: Academic achievement, career readiness, and career and life-long success

Objectives: Upon completion of this course, the student will perform each of these to an entry level of competence:

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 the etiology, pathophysiology, assessment and management of trauma patients to include psychosocial aspects of age-related assessment and treatment modifications at the depth and breadth specified in the 2021 National EMS Education Standards:
 - Single and multi-system trauma
 - Bleeding and external hemorrhage control
 - Skull/facial fractures, traumatic brain injuries; penetrating laryngotracheal injuries, spine and spinal cord trauma; spinal and neurogenic shock
 - 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/closed fractures, subluxations/dislocations, sprains/strains, pelvic fractures, amputations/replantation; crush and compartment syndromes, and suspension injury
 - Wounds: open and closed: avulsion, bite, contusion, hematoma, impaled objects, incision, laceration, and puncture; high pressure injection
 - Burns: thermal, chemical, electrical, inhalation, UV, radiation
 - Trauma in the pregnant, pediatric, elderly, 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),
 - Open and closed 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 assailants and/or use of deadly force weapons.
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 Procedure Manual.
7. Characterize the professional behaviors stated in the program affective objectives.

INSTRUCTIONAL and TECHNOLOGICAL INFORMATION**TEXTBOOK**

Because detailed class handouts are provided that include critical content, objectives, literature citations, and homework questions, **purchase of the textbooks is strongly recommended, but OPTIONAL:** Bledsoe, B.E. et al. (2023). Paramedic Care Principles and Practice (6th edition) Volumes 1 & 2. Boston: Pearson/ Brady.

Subscription to MyLab™ BRADY may be required for Academic Guided Study. (See the NCH Paramedic Student Handbook for ordering information)

Additional MATERIALS

- Most class handouts are distributed electronically and students will need access to a printer to make copies if desired. Handwritten notes have been shown to facilitate learning better than typing notes into a computer.
- Bring a portable electronic device to class that allows for data entry and internet accessibility.
- Papers and projects must be typed and electronically submitted.
- Students must scan or image their lab skill sheets and hospital clinical evaluation forms, thus they need access to a scanner or cell phone with higher pixel camera for clear resolution.
- Virtual class attendance: Hardware, software, and internet connectivity requirements are specified in the NCH PM Student Handbook.
- Multiple large (4-6 inch) three-ring binders to organize and store Student Portfolio documents.
- Bring a non-permanent dry erase marker and eraser for daily use in class white board activities.
- A stethoscope (for labs and clinical assignments) meeting program specifications
- Students must wear their EMS employer's duty uniform to class and all clinical rotations or purchase the Program-specific uniform shirt (directions for purchase are provided) and wear an NCH photo ID per program policy
- Students must purchase a Fisdap license for logging all patient contacts and skill revolution to build their student Portfolio. See the NCH Paramedic Student Handbook and e-mail messaging for details.

COURSE ASSIGNMENTS

- The weekly schedule of readings, assignments, labs, and exams is found in the Academic Calendar.
- Handouts are provided for each topic in lieu of textbooks and are considered mandatory reading.
- Homework questions are to be completed as independent study. Students are encouraged to discuss their homework answers and collaborate with squad members before each class starts to ensure correct answers are fully understood. All homework assignments must be electronically submitted on their due date and time. An EMS instructor will inspect completed questions, note any incomplete or incorrect work, and provide feedback.
- Additional work may be assigned if on guided study and tracked for 100% completeness in MyLab™ BRADY.

METHODS OF ASSESSMENT and EVALUATION

- Formative and summative assessments of student performance are conducted for all domains of learning
 - Cognitive objectives: White board questions, weekly quizzes, and modular cognitive (written) examination
 - Psychomotor objectives: Precepted labs; modular practical exam
 - Affective objectives: Observation of student behaviors against a criterion based rubric provided to students
- Students evaluate faculty and lab preceptors

Note: Because of the nature of exam content and time-sensitive academic schedule, students are expected to take every quiz and exam at NCH on the days, times, and location listed in the academic calendar. No offsite testing is approved unless a governmental emergency declaration sends us to fully virtual instruction.

COURSE GRADING POLICIES: Information relative to grading and retest policies, individualized education plans for guided study and remediation are contained in the NCH PM Student Handbook.

MAKE UP EXAMS/ASSIGNMENTS: Information relative to missed or late exams, quizzes or assignments is contained in the NCH PM Student Handbook.

COURSE CULTURE**ATTENDANCE POLICY**

Because of the critical nature of course content and time-sensitive schedule, students are expected to attend every class, lab, quiz, and exam at NCH on the days, times, and location they are offered. If a student must miss class due to an emergency excused absence, they may attend concurrently via Zoom. If unable to participate virtually, an individualized makeup plan will be implemented that the student must complete by the specified date. If a student completely misses three or more full days of class, has unexcused absences, is tardy three or more times, or fails to complete makeup assignments as outlined, they will be subject to a corrective action plan which may include separation from the program. Class attendance and reporting requirements for anticipated absences or late arrivals are specified in the NCH PM Student Handbook.

STUDENT BEHAVIORS | Academic dishonesty | Corrective COACHING | Disciplinary actions

The PM program is conducted within a Just Culture and Culture of Safety. Information relative to the code of student conduct, expected and prohibited behaviors, corrective coaching, due process, disciplinary procedures, and student resources is specified in the NCH PM Student Handbook posted at www.nwcemss.org and Harper College Student Handbook posted at <https://www.harpercollege.edu/catalog/handbook/Harper-College-2022-Handbook.pdf>

EQUAL OPPORTUNITY

NCH and Harper College consider students on the basis of individual merit. We do not discriminate on the basis of race, color, religion, sex, gender identity, sexual orientation, national or ethnic origin, age, marital status, protected veteran status, or other protected classes under the law (including Title IX of the Education Amendments Act of 1972 published under the United States Code at 20 U.S.C. §1681-§1688) as long as the individual is otherwise qualified and is able to competently perform all the essential elements of a PM's scope of practice and job functions and meets eligibility requirements for PM licensure.

STUDENTS WITH DISABILITIES seeking Academic Accommodations

The PM Program believes that all otherwise qualified students* should receive a fair and unbiased opportunity to participate in class and demonstrate their knowledge, skills, and abilities related to EMS in compliance with the Americans with Disabilities Act (ADA) and consistent with our mission, program standards, and duty to safeguard the public.

The Paramedic Certificate Program is a **LIMITED ENROLLMENT** course of study due to the special nature of EMS work and **very limited accommodations are available to PM students** as they **must fully demonstrate the ability to perform competently in class and during all assessments and examinations meeting the essential paramedic job functions listed in the NCH PM Student Handbook in the same manner as they would be expected to perform on duty in a hospital and/or at an EMS agency.**

*Only students with a diagnosed disability under the ADA (learning, ADHD, physical, psychological or other) who are otherwise qualified and able to competently perform all the essential functions of the paramedic profession and meet the eligibility requirements for PM licensure are eligible for accommodations.

Instructions for requesting accommodations in the Paramedic Certificate Program Courses are included in the NCH PM Student Handbook.

The PM Certificate Program provides all instruction and administers all assessments and examinations in English only as we must ensure that graduates are able to function competently and communicate effectively as a PM within the general communities that we serve. We are unable to provide education in a student's primary language if an English language learner or for those with limited English proficiency.

Any student already connected with the Harper College Access and Disability Services (ADS) and seeking an accommodation in the Paramedic Certificate Program shall provide the Course Program Director with a copy of their approved Accommodation Plan for their general college enrollment. These accommodations may or may not be considered reasonable for the NCH PM Certificate Program.

Requested accommodations must not fundamentally alter the program's course of instruction or standards, or the ability to assess the student's ability to rapidly and competently perform the essential job functions of a paramedic.

Each disability is unique to the individual, and all Program decisions regarding reasonable accommodations are evaluated on a case-by-case basis. The **Paramedic Program Director and Medical Director** will review each request and determine if an accommodation is appropriate and reasonable during the PM Certificate Program based on the general guidelines in the NCH PM Student Handbook. Students will be informed regarding the requested accommodations that will and will not be granted.

Access and Disability Services is located in Building D, D119; on the Harper College campus; 847.925.6266.

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 them by Harper College upon registration. Students access the G-mail account via an icon in the student portal. Please check this e-mail frequently for College correspondence. 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 NCH EMS office with an e-mail address** to be used for all correspondence relative to class academic and clinical activities by NCH Paramedic Program faculty and staff.