

Jefferson County Ambulance Service

EMS Academy

Paramedic Syllabus



- Course Title:** Paramedic
- Course Location:** On-line, JCAS – Fairfield, IA
- Course Duration:** July 1 – June 30 (students have one year to complete the course, but may finish sooner if they meet graduation requirements)
- Course Instructor:** **Joshua Hemminger**, BA, PM
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- Course Description:** This course, based on the National EMS Education Standards, instructs students in a variety of topics, including: patient assessment, anatomy and physiology, pathophysiology, pharmacology, medication administration, medical and trauma conditions and emergencies of all ages, and EMS operations. Students will apply knowledge and critical thinking through a variety of hands-on scenarios and skills practice, as well as through clinical experiences, in order to complete the program and be eligible for national certification testing.
- Instructional Method:** This course is self-paced, meaning that student can advance through the content as they wish. The course is taught using a variety of instructional techniques including primarily online lectures and assignments, group discussions, laboratory skills practice, and scenarios. All lectures, homework, unit exams, and supplemental materials are accessed and obtained online.
- Students are required to have and maintain their own computer and internet access throughout the course. Students who lose internet access are encouraged to contact the program director and make alternative plans until access is regained.
- Required Materials:** The following items are required: These materials are included in the cost of the course
- National EMS Education Standards (2021)
 - Instructional Guidelines (2009).
 - Paramedic Care: Principles & Practices, (5th ed)
 - MyBradyLab
 - EMSTesting
 - Fidap

These materials must be purchased separately, and the responsibility of the student to obtain.

- Pharmacology for the Prehospital Professional (2nd ed)
- Advanced Cardiac Life Support Manual, 2020
- Pediatric Advanced Life Support Manual, 2020
- Pre-Hospital Trauma Life Support (10th ed.), 2024

Assignments: All lectures and homework assignments are available online through MyBradyLab. All coursework must be completed in order, as outlined in the schedule below. Chapter assignments will account for 25% of the students' overall grade.

Skills/Labs: Students are responsible for scheduling their skills/labs days as they proceed through the course. Lab days are required, and skills evaluations and scenario performance will account for 25% of the students' overall grade.

Exams: All unit exams are considered "high-stakes." Students must pass each exam with a minimum of 75%. Failing an exam will constitute a retest for that unit. Retests cover the same material, but are not identical exams. Failure of the second attempt will result in dismissal from the program.

Unit exams will be completed on scheduled skills/labs days, and will be done in-person, using EMSTesting web-based platform.

Test scores account for 50% of the students' overall grade.

Grades: This is a pass/fail course. Students must maintain a 75% or higher at all times in the program. Students falling below 80% will be counseled, and remediation will be recommended. It is the student's responsibility to schedule remediation with the course instructor, or seek alternative sources.

Course Schedule:

Hours	Subject	Requirements
4	Program Orientation	Mandatory Attendance
Unit 1: Foundations		
2	Chapter 1 – Advanced Prehospital Emergency Medicine	
1	Chapter 2 – EMS Systems	
1	Chapter 3 – Roles and Responsibilities of the EMS Practitioner	
1	Chapter 4 – EMS Safety and Wellness	
2	Chapter 5 – EMS Research	
1	Chapter 6 – Public Health	
3	Chapter 7 – Medical-Legal Aspects of Out-of-Hospital Care	
1	Chapter 8 – Ethics in EMS	
2	Chapter 9 – EMS System Communications	
2	Unit 1 Exam	Fisdap access, BLS skills
4	Lab/Skills – BLS skills evaluation	checkoffs

Unit 2: A&P and Patho		
4	Chapter 18 – Human Lifespan Development	
16	Supplemental – Human Anatomy and Physiology	
12	Chapter 19 – Pathophysiology	
3	Unit 2 Exam	BLS skills checkoffs, basic scenarios
4	Lab/Skills – Scenarios	
Unit 3: Pharmacology		
4	Chapter 20 – Emergency Pharmacology	
4	Chapter 21 – Intravenous Access and Medication Administration	
2	Unit 3 Exam	IV access, medication administration
4	Lab/Skills – IV access, medication administration	
Unit 4: Airway Management		
4	Chapter 22 – Airway Management and Ventilation	
2	Unit 4 Exam	BLS airway skills, intubation, adv. airway
4	Lab/Skills – Airway management, Intubation, Needle Cric.	
Unit 5: Patient Assessment		
1	Chapter 23 – Scene Size Up	
1	Chapter 24 – Primary Assessment	
1	Chapter 25 – Therapeutic Communications	
1	Chapter 26 – History Taking	
2	Chapter 27 – Secondary Assessment	
2	Chapter 28 – Patient Monitoring Technology	
1	Chapter 29 – Patient Assessment in the Field	
2	Chapter 30 – Documentation	
2	Unit 5 Exam	patient assessment scenarios, documentation
4	Lab/Skills – Patient Assessment scenarios	
4	Clinical Orientation	
	STUDENTS MAY BEGIN CLINICAL TIME (ER, OR)	
Unit 6: Cardiology		
12	Chapter 33 – Cardiology	
12	AHA – ACLS	
3	Unit 6 Exam	rhythm analysis, cardiac and mega-code scenarios
4	Lab/Skills – Rhythm analysis, Cardiac scenarios	
Unit 7: Medical 1		
4	Chapter 32 – Pulmonary	
4	Chapter 34 – Neurology	
2	Chapter 35 – Endocrinology	
2	Chapter 36 – Immunology	
2	Chapter 37 – Gastroenterology	
2	Chapter 38 – Urology and Nephrology	

2	Unit 7 Exam	
4	Lab/Skills – Medical Scenarios	medical scenarios
Unit 8: Medical 2		
2	Chapter 39 – Toxicology	
2	Chapter 40 – Hematology	
2	Chapter 41 – Infectious Diseases and Sepsis	
2	Chapter 42 – Psychiatric and Behavioral Disorders	
2	Chapter 43 – Diseases of the Eyes, Ears, Nose, and Throat	
2	Chapter 44 – Nontraumatic Musculoskeletal Disorders	
2	Unit 8 Exam	
4	Lab/Skills – Medical Scenarios	medical scenarios
	STUDENTS MAY BEGIN AMBULANCE RIDE TIME	
Unit 9: Special Populations		
4	Chapter 45 – Obstetrics and Gynecology	
4	Chapter 46 – Neonatology	
4	Chapter 47 – Pediatrics	
12	AHA – PALS	
2	Chapter 48 – Geriatrics	
2	Chapter 49 – Abuse, Neglect, and Assault	
2	Chapter 50 – The Challenged Patient	
2	Chapter 51 – Acute Interventions for the Chronic Patient	
2	Unit 9 Exam	
4	Lab/Skills – Scenarios	delivery complications, pediatric scenarios
Unit 10: Trauma 1		
4	Chapter 52 – Trauma and the Trauma System	
2	Chapter 53 – Mechanism of Injury	
2	Chapter 54 – Hemorrhage and Shock	
2	Chapter 55 – Soft Tissue Trauma	
2	Chapter 56 – Burns	
2	Chapter 57 – Head, Face, Neck, and Spinal Trauma	
2	Unit 10 Exam	
4	Lab/Skills – Splinting, Immobilizing, Trauma Scenarios	trauma scenarios
Unit 11: Trauma 2		
2	Chapter 58 – Chest Trauma	
2	Chapter 59 – Abdominal and Pelvic Trauma	
2	Chapter 60 – Orthopedic Trauma	
2	Chapter 61 – Environmental Trauma	
2	Chapter 61 – Special Considerations in Trauma	
2	Unit 11 Exam	
4	Lab/Skills – Trauma Scenarios	trauma scenarios

16	NAEMT – PHTLS	
	STUDENTS MAY BEGIN CAPSTONE PRECEPTORSHIP	
	Unit 12: Operations	
2	Chapter 10 – Ground EMS Operations	
2	Chapter 11 – Air Medical Operations	
2	Chapter 12 – Terrorism	
2	Chapter 13 – Multiple Casualty Incidents and Incident Management	
2	IS-100 - Introduction to Incident Command	
2	IS-700 - NIMS, an Introduction	
2	Chapter 14 – Rescue Awareness	
2	Chapter 15 – Hazardous Materials	
2	IS-5 - Introduction to Hazardous Materials	
2	Chapter 16 – Crime Scene Awareness	
2	Chapter 17 – Rural EMS	
2	Unit 12 Exam	
4	Lab/Skills – Final Check-offs	Medical Director Checkoff
4	Course Final Exam	
4	Lab/Skills – Final Check-offs	

Hours

320 Total

255 Lecture / Exams

65 Lab/Skills

240 Clinical

Clinical Requirements: Students will complete rotations in several clinical areas, including: Emergency Room, Operating Room, Intensive Care, Obstetrics, Pediatrics, and Ambulance.

Duration of clinical rotations is not based on hours per se, but on patient contacts and skills. Students will complete a minimum of 120 hours of clinical shifts among the various rotations, and 120 hours of ambulance ride time before entering the Ambulance Preceptorship capstone.

The requirements listed are **minimum** patient encounters, cumulative throughout all clinical rotations. It is each students' responsibility to accurately document patient encounters and skills performed.

Ages	
Neonate	2
Infant	2
Toddler	2
Preschool	2
School-aged	2
Adolescent	2
Adult	30
Geriatric	9
Conditions	
Trauma	9
Psych/Behavior	6
Live Delivery	2
Cardiac	6
Cardiac arrest	2
Neurological	4
Respiratory	4
Other medical	6
Skills	
IV access	25
IV infusions	2
IV bolus	10
IM admin	2
IO access	2
BVM	2
Live Intubation	3
Ambulance	
Ambulance runs	30
Capstone Team Leads	20

Additional information can be found in the Program Policy Manual.