

Paramedic Care I

This is the first course of a four level course Paramedic Program. The Paramedic Care I course is the foundation course for the Paramedic Program. Students will be introduced into the world of paramedicine, and learn the roles and responsibilities of a Paramedic through the review of medical, legal and ethical issues. Learn the foundations in anatomy and physiology, pathophysiology, patient assessment, advanced airway management and ventilation, and medication administration. The student will be prepared in the classroom setting for introduction to the clinical setting in which he or she will be exposed to actual patient contact in such settings as the operating room, critical care, emergency room as well as riding out on the ambulance in Paramedic Care II.

Anatomy and Physiology

122 didactic

	<u>Didactic</u>	<u>Lab</u>
Class Orientation	2	
EMS Systems	1	
Research	2	
Workforce Safety and Wellness	1	2
Documentation	1	8
EMS Systems Communications	1	
Therapeutic Communication	2	
Medical/Legal Ethic	4	
Life Span Development	4	
Medical Terminology	2	
Public Health	1	
EMT Basic Skills		14
Assessment		
Scene Size-Up	0.5	
Primary Assessment	1	6
History Taking	2	2
Secondary Assessment	8	6
Monitoring devices	2	5
Reassessment	0.5	1
Lab		
Pathophysiology	26	8
The Cell in Revue		
Fluid and Electrolytes and Acid-Base Balance		
Disease Causes and Pathophysiology		
Self Defense Mechanisms		
The Immune Response		
Variances in Immunity		

Airway Management, Respirations and Artificial Ventilation	18	16
Airway management		
Respiration		
Artificial Ventilation		
Medication Administration	24	24
Principles and Routes of medication Administration		
Parenteral Route of Medication Administration		
Medication Administration		
IV Access		
Paramedic I Final Exam		
Student Review	7 +7	

Total Classroom 322

Clinical Requirements “None”

Objectives for Paramedic I

Class Orientation

At the end of orientation the student will be able to discuss the roles and responsibilities of the paramedic student.

EMS Systems

At the completion of this unit the paramedic student will describe the EMS Systems.

Research

At the completion of this unit the paramedic student will be able to discuss and demonstrate with a research project the understanding and the purpose of research in EMS.

Workplace Safety and Wellness

At the completion of this unit, the paramedic student will understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.

Documentation

At the end of this unit the paramedic student will understand and demonstrate in patient care reports the importance of documentation in patients charts.

EMS Systems Communications

At the end of this unit the paramedic student will describe the EMS Systems communications.

Therapeutic Communication

At the completion of this unit, the paramedic student will be able to integrate the principles of therapeutic communication effectively.

Medical/Legal

At the completion of this unit, the paramedic student will understand the legal issues that impact decisions made in the out-of-hospital environment.

Ethics

At the completion of this unit, the paramedic student will understand the role that ethics plays in decision making in the out-of-hospital environment.

Life Span Development

At the completion of this unit, the paramedic student will be able to integrate the physiological, psychological, and sociological changes throughout human development with assessment and communication strategies for patients of all ages.

Medical Terminology

At the completion of this unit the student will describe and demonstrate appropriate methods of medical terminology.

Public Health

At the completion of this unit the paramedic student will describe the purpose of public health.

Pathophysiology

At the completion of this unit, the paramedic student will be able to describe the pathophysiology and the importance of how this applies to the patient during assessment and treatment.

Patient Assessment

1. At the completion of this unit, the paramedic student will be able to use the appropriate techniques to obtain a medical history from a patient.
2. At the completion end of this unit, the paramedic student will be able to explain the pathophysiological significance of physical exam findings.
3. At the end of this unit, the paramedic student will be able to integrate the principles of history taking and techniques of physical exam to perform a patient assessment.
4. At the end of this unit, the paramedic student will be able to apply a process of clinical decision making to use the assessment findings to help form a field impression.
5. At the completion of this unit, the paramedic student will be able to follow an accepted format for dissemination of patient information in verbal form, either in person or over the radio.
6. At the completion of this unit, the paramedic student will be able to effectively document the essential elements of patient assessment, care and transport.

Airway Management

At the completion of this unit the student will be able to establish and or maintain a Patent airway, oxygenation, and ventilation.

Medication Administration

At the completion of this unit, the paramedic student will be able to safely and precisely access the venous circulation and administer medications safely and appropriately.

Paramedic Care II

Prerequisites for Paramedic Care II

1. EMT Basic License
2. Completion of Anatomy and Physiology course
3. Completion of The Paramedic I course to include completion of all didactic and lab portions.

This is the second course of a four course Paramedic Program. The Paramedic Care II course is when the student learns about pharmacology, trauma, trauma management, electrophysiology of the heart, and EKG interpretation. At the end of this class the student will be well prepared to take a nationally approved PHTLS course. The student will be prepared in the classroom setting for introduction to the clinical setting in which he/she will be exposed to actual patient contact in such settings as the operating room, critical care unit and the emergency department of hospitals as well as riding out on an Advanced Life Support staffed ambulance.

Class Orientation	Didactic	Lab
Pharmacology	32	4
a) <i>Drugs Used To Affect The Nervous System</i>		
b) <i>Drugs Used To Affect The Cardiovascular System</i>		
c) <i>Drugs Used To Affect The Respiratory System</i>		
d) <i>Drugs Used To Affect The Gastrointestinal System</i>		
e) <i>Drugs Used In The Treatment Of Cancer</i>		
f) <i>Infectious and Inflammatory Processes</i>		
g) <i>Poisoning and Overdoses</i>		
Trauma and Trauma Assessment		
• Trauma Systems	3	3
• Hemorrhage & Shock	16	3
• Soft Tissue Trauma	4	2
• Burns	4	2
• Head, Face, and Spinal Trauma	4	2
• Thoracic Trauma	4	2
• Abdominal Trauma	4	2
• Musculoskeletal Trauma	4	2
• Nervous System Trauma	4	2
• Environmental Emergencies	4	2
• Multi-System Trauma	8	8
Cardiology		
• Cardiovascular Anatomy and Physiology	16	4
• Electrocardiographic Monitoring	10	4
• Dysrhythmias	47	28

Total Classroom 237

Objectives

Pharmacology At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles of pharmacology and the assessment findings to formulate a field impression and implement a pharmacologic management plan.

Trauma

1. At the completion of this unit, the paramedic student will be able to effectively document the essential elements of patient assessment, care and transport.
2. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with shock or hemorrhage.
3. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement the treatment plan for the patient with soft tissue trauma.
4. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement the management plan for the patient with a burn injury.
5. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the trauma patient with a suspected head injury.
6. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with a suspected spinal injury.
7. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for a patient with a thoracic injury.
8. At the completion of this unit, the paramedic student will be able to integrate pathophysiologic principles and the assessment findings to formulate a field impression and implement the treatment plan for the patient with suspected abdominal trauma.
9. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement the treatment plan for the patient with a musculoskeletal injury.

Cardiology

At the completion of this unit the student will be able to interpret dysrhythmias.

Requirements for successful completion of the course are as follows:

Cognitive - Students must demonstrate competency of all content areas. This is most often done using quizzes, regular topical exams, and some combination of comprehensive exams (mid terms and finals). Item analysis will be utilized to assure discrimination on achievement tests. Scores on tests of known validity and reliability will be correlated to teacher made examinations. Examinations will be balanced to areas within the course. Pass/fail scores will be established with an understanding of standard setting. Decisions regarding the continuation of students in class will to be made following a pattern of performance. Essay and open ended questions will be clearly written and acceptable answers will be known before the examination is administered. Scoring will be in accordance with accepted practices.

Affective - Students must demonstrate professionalism, conscientiousness and interest in learning. Just as with cognitive material, the program will not hold a student responsible for professional behaviors that were not clearly taught. Students who fail to do so will be counseled while the course is in progress in order to provide them the opportunity to develop and exhibit the proper attitude expected of a paramedic.

Psychomotor - Students must demonstrate proficiency in all skills. A complete list of skill competencies expected to be completed within the program will be available to each student. Scenarios will be as medically accurate as possible and flow as they would in a typical EMS call. In clinical and field internship all instructional staff must be familiar with psychomotor instruments and expectations. Clinical and field instructional staff orientations will be used to resolve issues of inter-rater reliability. Course ending skills examinations will be administered. Special remedial sessions may be utilized to assist in the completion of a unit or module of instruction. Pass/fail scores will be in accordance with accepted practices. The program will utilize the skills evaluation instruments provided in the 1999 paramedic curriculum.

Students will be evaluated in all three domains in didactic, practical laboratory, clinical and field internship. For example, the students cognitive knowledge can be evaluated in the clinical setting by direct questioning or discussions. Secondly, if an IV is started on a patient, the psychomotor skill will be evaluated. Finally, the affective domain, their professional attributes can be measured. This example also applies to skills laboratories. In the skills laboratory, the cognitive domain can be measured by asking questions about the skill, and the affective domain can be measured by their attitude in learning and practicing the skills.

Paramedic Care III

Prerequisites for Paramedic Care III

1. EMT Basic License
2. Completion of Anatomy and Physiology course
3. Completion of the Paramedic I course to include completion of all didactic and lab portions.
4. Completion of the Paramedic II course to include completion of all didactic and lab portions.

This is the third course of a four course Paramedic Program. The Paramedic Care III course is when the student is introduced to aspects of paramedicine that will prepare him/her for some of the medical and cardiac topics of concern to the paramedic. This will include cardiology, pulmonology and numerous medical problems. The student will be prepared in the classroom and lab setting for introduction to clinical in which he/she will be exposed to actual patient contact in such settings as the emergency department of hospitals under the direct supervision of an emergency physician, paramedic preceptor as well as riding out on an Advanced Life Support staffed ambulance.

Class Orientation

	Didactic	Lab
Cardiology		
• <i>Assessment of the Cardiovascular Patient</i>	8	4
• <i>Management of the Cardiovascular Patient</i>	8	4
• <i>Managing Specific Cardiovascular Emergencies</i>	8	7
• <i>12 Lead ECG monitoring and Interpretation</i>	30	24
Pulmonology	12	4
Neurology	8	4
Endocrinology	4	2
Allergies & Anaphylaxis	4	2
Gastroenterology	6	2
Urology	3	2
Toxicology	8	2
Hematology	4	
Environmental Conditions	6	2
Infectious and Communicable Diseases	8	2
Behavioral / Psychiatric	4	3

Classroom Hours 180 Hours

Objectives

Cardiology

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease.

Pulmonology

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory problems.

Neurology

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a neurological problem.

Endocrinology

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with an endocrine problem.

Allergies and Anaphylaxis

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.

Gastroenterology

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a gastroenterologic problem.

Requirements for successful completion of the course are as follows:

Cognitive - Students must demonstrate competency of all content areas. This is most often done using quizzes, regular topical exams, and some combination of comprehensive exams (mid terms and finals). Item analysis will be utilized to assure discrimination on achievement tests. Scores on tests of known validity and reliability will be correlated to teacher made examinations. Examinations will be balanced to areas within the course. Pass/fail scores will be established with an understanding of standard setting. Decisions regarding the continuation of students in class will to be made following a pattern of performance. Essay and open ended questions will be clearly written and acceptable answers will be known before the examination is administered. Scoring will be in accordance with accepted practices.

Affective - Students must demonstrate professionalism, conscientiousness and interest in learning. Just as with cognitive material, the program will not hold a student responsible for professional behaviors that were not clearly taught. Students who fail to do so will be counseled while the course is in progress in order to provide them the opportunity to develop and exhibit the proper attitude expected of a paramedic. The following form will be used to evaluate the student.

Psychomotor - Students must demonstrate proficiency in all skills. A complete list of skill competencies expected to be completed within the program will be available to each student. Scenarios will be as medically accurate as possible and flow as they would in a typical EMS call. In clinical and field internship all instructional staff must be familiar with psychomotor instruments and expectations. Clinical and field instructional staff orientations will be used to resolve issues of inter-rater reliability. Course ending skills examinations will be administered. Special remedial sessions may be utilized to assist in the completion of a unit or module of instruction. Pass/fail scores will be in accordance with accepted practices. The program will utilize the skills evaluation instruments provided in the 1999 paramedic curriculum.

Students will be evaluated in all three domains in didactic, practical laboratory, clinical and field internship. For example, the students cognitive knowledge can be evaluated in the clinical setting by direct questioning or discussions. Secondly, if an IV is started on a patient, the psychomotor skill will be evaluated. Finally, the affective domain, their professional attributes can be measured. This example also applies to skills laboratories. In the skills laboratory, the cognitive domain can be measured by asking questions about the skill, and the affective domain can be measured by their attitude in learning and practicing the skills.

Great Plains Technology Center

Paramedic Care IV

Prerequisites for Paramedic Care IV

1. EMT Basic License
2. Completion of Anatomy and Physiology course
3. Completion of the Paramedic I course to include completion of all didactic and lab portions.
4. Completion of the Paramedic II course to include completion of all didactic and lab portions along with completion of all clinical hours and clinical competencies as required by class policy.
5. Completion of the Paramedic III course to include completion of all didactic and lab portions along with completion of all clinical hours and clinical competencies as required by class policy.

This is the fourth course of a four course Paramedic Program. The Paramedic Care IV course is when the student is introduced to aspects of paramedicine that will prepare him/her for some of the medical obstetrics/gynecology, pediatric topics of concern to the paramedic. The student will also be prepared for special considerations, assessment based management and ambulance operations. The student will be prepared in the classroom and lab setting for introduction to clinical in which he/she will be exposed to actual patient contact in such settings as the emergency department, labor and delivery, pediatrics areas of hospitals as well as riding out on an Advanced Life Support staffed ambulance and working with a physician.

Class Orientation

	Didactic	Lab
Gynecology	14	3
Obstetrics	16	3
Neonatology	8	4
Pediatrics	32	11
Geriatrics	8	4
Abuse and Assault	4	2
Special Challenges	4	2
Acute Interventions	4	2
Assessment Based Management	12	4
Ambulance Operations	2	2
Medical Incident Command	8	8
Rescue Operations	8	12
Hazardous Materials Incidents	10	6
Crime Scene Awareness	4	2

Total 144 + 36 Hours with 108 clinical rotations

Didactic finishes at 144 hours with ACLS and PALS and the rest is 108 hours for clinical rotations and preparing for the exam.

Great Plains Technology Center

Objectives

Gynecology

At the end of this unit, the paramedic student will be able to utilize gynecological principles and assessment findings to formulate a field impression and implement the management plan for the patient experiencing a gynecological emergency.

Obstetrics

At the completion of this unit, the paramedic student will be able to apply an understanding of the anatomy and physiology of the female reproductive system to the assessment and management of a patient experiencing normal or abnormal labor.

Neonatology

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a neonatal patient.

Pediatrics

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a neonatal patient.

Geriatrics

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a geriatric patient.

Abuse and Assault

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a abused and assaulted patient.

Special Challenges

At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a special challenges patient.

Acute Interventions

Assessment Based Management

Ambulance Operations

Medical Incident Command

Rescue Operations

Hazardous Materials Incidents

Crime Scene Awareness

Great Plains Technology Center

Requirements for successful completion of the course are as follows:

Cognitive - Students must demonstrate competency of all content areas. This is most often done using quizzes, regular topical exams, and some combination of comprehensive exams (mid terms and finals). Item analysis will be utilized to assure discrimination on achievement tests. Scores on tests of known validity and reliability will be correlated to teacher made examinations. Examinations will be balanced to areas within the course. Pass/fail scores will be established with an understanding of standard setting. Decisions regarding the continuation of students in class will to be made following a pattern of performance. Essay and open ended questions will be clearly written and acceptable answers will be known before the examination is administered. Scoring will be in accordance with accepted practices.

Affective - Students must demonstrate professionalism, conscientiousness and interest in learning. Just as with cognitive material, the program will not hold a student responsible for professional behaviors that were not clearly taught. Students who fail to do so will be counseled while the course is in progress in order to provide them the opportunity to develop and exhibit the proper attitude expected of a paramedic. The following form will be used to evaluate the student.