NRPM 110: Medical Emergency Pre-Hospital Care Syllabus

[Semester and year]

Instructor information

Instructor	Email Address	Office hours
Paula Johnson	Paula.johnson@princetonrescue.com	Vary

General information

Description

This course will ask participants to integrate assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint. *Co-Requisites: NRPM 108, Pre-Requisites: NRPM 103*

Expectations and goals

Upon Successful completion of this course, students will be able to:

- Given a specified scenario, integrate assessment findings with the principles of pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.
- Discuss the pathophysiology, assessment findings, and management of medical, infectious, and behavioral emergencies.
- Discuss the pathophysiology, psychosocial impact, presentations, prognosis, and management of common non-traumatic musculoskeletal disorders.
- Discuss the pathophysiology, psychosocial impact, presentations, prognosis, and management of common diseases of the HEENT.

Course Delivery Method: HYBRID

Course materials

Required materials

Computer with Internet capabilities to access:

- https://canvas.instructure.com

Optional materials

Required text

- Nancy Caroline's Emergency Care in the Streets; 8th edition, 2013 by Elling and Smith; Publisher Jones and Bartlett. ISBN: 978-1-284-13718-7

"To effectively and professionally provide quality educational experiences for students to meet the needs of the communities we serve."

Course schedule *(*Weeks correspond to semester schedule)*

Week	Topic	Pre-Class Assignment	Class Session	Reflective Assignment ***(DUE: Friday after class session)***
PLEASE SEE TEAMUP CALENDAR FOR SCHEDULE DETAILS: https://teamup.com/ksn4622frxf4i122dy				

Procedures for Evaluation

A. *Students must complete each NRPM course with a grade point average of at least 70%. Any student who does not have a 70% average at the completion of an NRPM course will not be allowed to continue in the program. The student's academic standing will be discussed with the student periodically throughout the program.

B. If a student scores below a 70% on a NRPM Cumulative examination, the student will be required to retake the examination until a score of 70% is attained; however, the original score will stand as the recorded score.

***NOTE:** NRPM 202 is the exception to this policy. In this course, you must successfully complete each sub-specialty based on the criteria from each governing agency. The final grade issued for this course will be a "pass/fail." If the student is unable to receive a passing grade for this class, the student will NOT be allowed to continue in the Paramedic Program.

Grading Components and Weights:

The Paramedic Program Student's Classroom Assessment grade will be the sum of the weighted scores comprising the parameters of course work outlined below.

Didactic Courses
80% Coursework • Homework/Special Projects – 5% • Quizzes – 5% • Case Studies/Objectives – 20% • Exams – 50%
20% Monthly Behavioral Evaluations

Grading Scale:

100-90 = A 89-80 = B 79-70 = C 69-60 = D <59 = F

All students must maintain a C average in each course to continue throughout the program

Attendance Policy

All material is important to your success; therefore, students absent more than 5% of the course without a valid excuse will be dismissed from the program of study.

There are two types of absences recognized as a "valid excuse" by Princeton Rescue Squad's Education Department: (1) absence resulting from participation in an activity where you are officially representing the Education Department; and (2) absence caused by unforeseeable and unavoidable circumstance which is beyond your control. All other absences are considered willful and will not count as excused. It is your responsibility to provide your instructor with a proper explanation and documentation of these valid absences. It is the responsibility of the student to make up any work or testing missed. The missed (comparable) coursework and exams must be completed within 72 hours of the absence and prior to the last date of the class.

Online Video course Lectures associated with "Hybrid" classes are required to be completed by 10am on the morning of the deadline listed. These deadlines are typically due weekly and attendance will be taken based on your submission of these Lectures. If you fail to submit the Lecture when due, you will be marked absent for that week's hybrid class.

Tardiness will not be tolerated. Any student who shows up later than 15 minutes into the beginning of a course or leaving a class session 30 minutes or more before the end of the class day will result in the mark of tardy on his/her record. An accumulation of 5 tardies will result in an unexcused absence.

Students may withdraw from the course at any time. Any student that misses more than two (2) consecutive class sessions without contacting the course instructor will be considered to have withdrawn from the course.

Student Advisory and Evaluation

Faculty will routinely discuss student progress throughout the program of study at regular intervals (increments no longer than 25% of the program) to provide learners with adequate chances to take corrective actions. During these mandatory meetings with a student item(s) or subject(s) of concern to discuss may include, but are not limited to:

Excessive absences and tardiness, failure to turn in assignments / clinical rotations on time, classroom / clinical behavior concerns, plagiarism, cheating, struggling or failure to maintain a GPA of 70%, etc.

A Student Advisory Form will be filled out and signed by both the Faculty member addressing the concern, and the student. Once the concern has been documented, the Program Instructor and student will discuss possible resolutions to the problem and a proposed action plan will be written on the Advisory Form. The student may use the Advisory Form to record a rebuttal against the initial concern or proposed action plan. The instructor will then mark the form "unresolved" and forward it to the Education Director who investigate the matter and make a determination on a second Advisory Form. Copies of these completed Advisory Forms are available to the student; however, originals must and will be retained by the Education Program.

Standards of Conduct Regarding Cell Phone Use

As adults, you are permitted to retain your cellular devices unless during testing. At that time, all cell phones must be placed in a bag away from your testing area or given to your instructor until the testing is complete. It is common during lecture for students to utilize their cell phones to look up information regarding topics discussed in the class session, and this practice is permitted. However, if the instructor or other member of the instructional or administrative staff see that cell phones are being used for other purposes (ie: facebook, messenger, etc.)

during lecture, lab, or any other designated course activity then the following discipline policy will take place:

- First offense – verbal warning
- Second offense – written warning
- Third offense – dismissal from the program

Academic Dishonesty

As a student and pre-hospital professional, you are expected to adhere to a professional code of conduct and not engage in plagiarism, cheating, falsifying information or records, or any other such activity. Failure to adhere to this code of conduct will result in disciplinary action up to and including dismissal from the program.

Grounds For Dismissal

A student may be dismissed from the program for the following reasons:

1. Absenteeism greater than 1 unexcused class.
2. Receiving a "D" or "F" as a cumulative grade for the course.
3. Insubordination (in class, lab, or in clinical)
4. The conviction and/or known use of, distribution of, or possession of illegal drugs, or controlled substances.
5. Failure to accomplish clinical assignments and objectives
6. Unprofessional or unethical conduct
7. Cheating in related or professional EMS courses or in clinical documentation.

NRPM 110 Course Objectives:

1. Discuss the anatomy and physiology of the organs and structures related to the nervous system.
2. Discuss indications for a neurologic assessment.
3. Discuss and practice the components of the neurologic assessment, including the following:

- Posture and gait
- Mental status
- Examination of the cranial nerves
- Sensory examination
- Motor examination
- Deep tendon reflexes
- Meningeal examination
- Glasgow Coma Scale

4. Describe the etiology, epidemiology, history, and physical findings for the following neurologic conditions or situations:

- Altered mental status
- Delirium
- Dementia
- Seizures
- Status epilepticus
- Syncope
- Headache
- Brain tumor
- Brain abscess
- Stroke
- Transient ischemic attack

5. With the patient history and physical examination findings, develop a treatment plan for a patient having any of the following neurologic conditions or situations:
- Altered mental status
- Delirium
- Dementia
- Seizures
- Status epilepticus
- Syncope
- Headache
- Brain tumor
- Brain abscess
- Stroke
- Transient ischemic attack

6. Identify risk factors that may affect the nervous system.
7. Describe the etiology, epidemiology, history, and physical findings for the following infectious neurologic diseases:
- Meningitis
- Encephalitis
- Shingles
- Poliomyelitis

8. With the patient history and physical examination findings, develop a treatment plan for a patient having any of the following infectious neurologic diseases:
- Meningitis
- Encephalitis
- Shingles
- Poliomyelitis

9. Describe the etiology, epidemiology, history, and physical findings for the following degenerative neurologic diseases:
- Alzheimer's disease
- Parkinson's disease
- Amyotrophic lateral sclerosis
- Multiple sclerosis
- Guillain-Barré syndrome
- Myasthenia gravis
- Huntington's disease

10. With the patient history and physical examination findings, develop a treatment plan for a patient having any of the following degenerative neurologic diseases:
- Alzheimer's disease
- Parkinson's disease
- Amyotrophic lateral sclerosis
- Multiple sclerosis
- Guillain-Barré syndrome
- Myasthenia gravis
- Huntington's disease

11. Describe the etiology, epidemiology, history, physical findings, and management of spinal cord disorders.
12. Describe the etiology, epidemiology, history, physical findings, and management of autonomic dysreflexia.
13. Describe the etiology, epidemiology, history, physical findings, and management of hydrocephalus.
14. Describe the etiology, epidemiology, history, physical findings, and management of spina bifida.
15. Define the following:
- Muscular dystrophy
- Dystonia
- Trigeminal neuralgia
- Bell's palsy

Affective-
1.Characterize the feelings of a patient who regains consciousness among strangers.
2.Formulate means of conveying empathy to patients whose ability to communicate is limited by their condition.

1. Describe the incidence, morbidity, and mortality rates of endocrine emergencies, including the need for rapid assessment and intervention.
2. Discuss the anatomy and physiology of the organs and structures involved in endocrinologic diseases.
3. Describe normal glucose metabolism.
4. Describe the pathophysiology of type 1 and type 2 diabetes.
5. Discuss the pathophysiology of diabetic metabolism.
6. Describe the assessment findings of the hypoglycemic patient.
7. Develop a treatment plan based on the assessment findings of the hypoglycemic patient.
8. Describe the assessment findings of the hyperglycemic patient.
9. Develop a treatment plan based on the assessment findings of the hyperglycemic patient.
10. Describe the assessment findings of the patient with diabetic ketoacidosis.
11. Develop a treatment plan based on the assessment findings of the patient with diabetic ketoacidosis.
12. Describe the assessment findings of the patient with hyperosmolar hyperglycemic nonketotic coma.
13. Develop a treatment plan based on the assessment findings of the patient with hyperosmolar hyperglycemic nonketotic coma.
14. Discuss the pathophysiology of pituitary gland disorders.
15. Describe the assessment findings of patients with pituitary gland disorders.
16. Develop a treatment plan based on the assessment findings of the patient with a pituitary gland disorder.
17. Discuss the pathophysiology of thyroid gland disorders.
18. Describe the assessment findings of patients with thyroid gland disorders.
19. Develop a treatment plan based on the assessment findings of the patient with a thyroid gland disorder.
20. Discuss the pathophysiology of parathyroid gland disorders.
21. Describe the assessment findings of patients with parathyroid gland disorders.
22. Develop a treatment plan based on the assessment findings of the patient with a parathyroid gland disorder.
23. Discuss the pathophysiology of adrenal gland disorders.
24. Describe the assessment findings of patients with adrenal gland disorders.
25. Develop a treatment plan based on the assessment findings of the patient with an adrenal gland disorder.
26. Discuss the etiology of nutritional disorders.
27. Discuss the pathophysiology of nutritional disorders.
28. Describe the assessment findings of patients with nutritional disorders.
29. Develop a treatment plan based on the assessment findings of the patient with a nutritional disorder.

1. Review the specific anatomy and physiology of the immune system and pathophysiology pertinent to immune system disorders.
2. Describe characteristics of the immune system, including the categories of white blood cells, the reticuloendothelial system, and the complement system.
3. Describe the processes of the immune system defenses, including humoral and cell-mediated immunity.
4. Define natural and acquired immunity.
5. Define antigens and antibodies.
6. Discuss the formation of antibodies in the body.
7. Define specific terminology identified with immune system disorders.
8. Discuss the following relative to the human immunodeficiency virus: causative agent, body systems affected and potential secondary complications, modes of transmission, the seroconversion rate after direct significant exposure, susceptibility and resistance, signs and symptoms, specific patient management and personal protective measures, treatments, and research exploring possible immunization.
9. Discuss the following autoimmune disorders: systemic lupus erythematosus, insulin-dependent diabetes mellitus, rheumatoid arthritis, celiac disease, chronic active hepatitis, and multiple sclerosis.
10. Define allergic reaction.
11. Define anaphylaxis.
12. Describe the incidence, morbidity, and mortality rates of anaphylaxis.
13. Identify the risk factors most predisposing to anaphylaxis.
14. Discuss the anatomy and physiology of the organs and structures related to anaphylaxis.
15. Describe the prevention of anaphylaxis and appropriate patient education.
16. Discuss the pathophysiology of allergy and anaphylaxis.
17. Describe the common methods of entry of substances into the body.

18. List common antigens most frequently associated with anaphylaxis.
19. Describe physical manifestations and pathophysiologic principles of anaphylaxis.
20. Differentiate manifestations of an allergic reaction from anaphylaxis.
21. Recognize the signs and symptoms related to anaphylaxis.
22. Differentiate the various treatment and pharmacologic interventions used in the management of anaphylaxis.
23. Describe the clinical significance of abnormal findings in the patient with anaphylaxis.
24. Develop a treatment plan for the patient with allergic reaction and anaphylaxis.
25. Discuss the principles of and disorders related to transplantation surgery.
26. Discuss public health principles relevant to immune system disorders.

1. Describe the incidence, morbidity, and mortality rates of gastrointestinal emergencies.
2. Identify the risk factors most predisposing to gastrointestinal emergencies.
3. Discuss the anatomy and physiology of the organs and structures related to gastrointestinal diseases.
4. Discuss the pathophysiology of inflammation and its relation to acute abdominal pain.
5. Define *somatic pain* as it relates to gastroenterology.
6. Define *visceral pain* as it relates to gastroenterology.
7. Define *referred pain* as it relates to gastroenterology.
8. Differentiate hemorrhagic from nonhemorrhagic abdominal pain.
9. Discuss the signs and symptoms of local inflammation relative to acute abdominal pain.
10. Discuss the signs and symptoms of peritoneal inflammation relative to acute abdominal pain.
11. List the signs and symptoms of general inflammation relative to acute abdominal pain.
12. Based on assessment findings, differentiate local, peritoneal, and general inflammation as they relate to acute abdominal pain.
13. Describe the questioning technique and specific questions the paramedic should ask when gathering a focused history in a patient with abdominal pain.
14. Describe the technique for performing a comprehensive physical examination on a patient with abdominal pain.
15. Define *abdominal wall hernia*.
16. Define *incarcerated hernia*.
17. Define the etiology of an incarcerated hernia.
18. Describe signs and symptoms of an incarcerated hernia.
19. Describe the treatment for an incarcerated hernia.
20. Define *esophagitis*.
21. List the common causes of esophagitis.
22. Describe the signs and symptoms of esophagitis.
23. Describe the treatment of esophagitis.
24. Define *candidiasis of the esophagus*.
25. Describes the etiology of candidiasis esophagitis.
26. Describe the signs and symptoms of candidiasis esophagitis.
27. Describe the treatment for candidiasis esophagitis.
28. Describe gastroesophageal reflux.
29. Define the cause of gastroesophageal reflux.
30. Describe the symptoms of reflux and how they differ from other forms of esophagitis.
31. Describe the treatment for gastroesophageal reflux.
32. Define *caustic substances*.
33. Provide examples of caustic substances.
34. Define the type of necrosis that occurs with acidic and alkali substances.
35. Describe the importance of obtaining a history in caustic ingestion.
36. Describe the pertinent parts of the physical examination in caustic ingestion.
37. Define treatment for caustic ingestion.
38. Define *Boerhaave syndrome*.
39. Describe the signs and symptoms of Boerhaave syndrome.
40. Describe the treatment of Boerhaave syndrome.
41. Define *esophageal foreign body*.
42. Describe the signs and symptoms of esophageal foreign body.
43. Describe the appropriate treatment for esophageal foreign body.
44. Define *hiatal hernia*.
45. Describe the signs and symptoms of a hiatal hernia.
46. Define *Mallory-Weiss syndrome*.

47. Describe the signs and symptoms of Mallory-Weiss syndrome.
48. Describe the appropriate treatment for Mallory-Weiss syndrome.
49. Define *esophageal stricture* and *stenosis*.
50. Describe the signs and symptoms of esophageal stricture and stenosis.
51. Describe the appropriate treatment for esophageal stricture and stenosis.
52. Define *tracheoesophageal fistula*.
53. Describe the signs and symptoms of a tracheoesophageal fistula.
54. Describe the appropriate treatment for tracheoesophageal fistula.
55. Define *esophageal varices*.
56. Discuss the pathophysiology of esophageal varices.
57. Describe the signs and symptoms related to esophageal varices.
58. Describe the appropriate management for esophageal varices.
59. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with esophageal varices.
60. Define *cirrhosis*.
61. Describe the pathophysiology of cirrhosis.
62. Describe the signs and symptoms of cirrhosis.
63. Describe the appropriate treatment of cirrhosis.
64. Define *hepatorenal failure*.
65. Describe the signs and symptoms of hepatorenal failure.
66. Describe the appropriate treatment of hepatorenal failure.
67. Define *acute hepatitis*.
68. Discuss the pathophysiology of acute hepatitis.
69. Recognize the signs and symptoms related to acute hepatitis.
70. Describe the management of acute hepatitis.
71. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with acute hepatitis.
72. Define *hepatic tumors*.
73. Describe the signs and symptoms of hepatic tumors.
74. Describe the appropriate treatment of hepatic tumors.
75. Define *cholecystitis, cholelithiasis, cholangitis,* and *choledocholithiasis*.
76. Discuss the pathophysiology of cholecystitis.
77. Recognize the signs and symptoms related to cholecystitis.
78. Describe the management of cholecystitis.
79. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with cholecystitis.
80. Define *pancreatitis*.
81. Discuss the pathophysiology of pancreatitis.
82. Recognize the signs and symptoms related to pancreatitis.
83. Describe the management of pancreatitis.
84. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with pancreatitis.
85. Define *pancreatic tumors*.
86. Define *adenocarcinoma, cyst adenoma,* and *neuroendocrine tumors*.
87. Describe the signs and symptoms of pancreatic tumors.
88. Describe the appropriate treatment of pancreatic tumors.
89. Define *peritonitis*.
90. Describe the signs and symptoms of peritonitis.
91. Describe the appropriate treatment for peritonitis.
92. Define *gastritis*.
93. Describe signs and symptoms of gastritis.
94. Describe the appropriate treatment for gastritis.
95. Define *peptic ulcer disease*.
96. Discuss the pathophysiology of peptic ulcer disease.
97. Recognize the signs and symptoms related to peptic ulcer disease.
98. Describe the management of peptic ulcer disease.
99. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with peptic ulcer disease.
100. Define *upper gastrointestinal bleeding*.
101. Discuss the pathophysiology of upper gastrointestinal bleeding.

102. Recognize the signs and symptoms related to upper gastrointestinal bleeding.
103. Describe the management of upper gastrointestinal bleeding.
104. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with upper gastrointestinal bleeding.
105. Define *lower gastrointestinal bleeding*.
106. Discuss the pathophysiology of lower gastrointestinal bleeding.
107. Recognize the signs and symptoms related to lower gastrointestinal bleeding.
108. Describe the management of lower gastrointestinal bleeding.
109. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with lower gastrointestinal bleeding.
110. Define *acute gastroenteritis*.
111. Discuss the pathophysiology of acute gastroenteritis.
112. Recognize the signs and symptoms related to acute gastroenteritis.
113. Describe the management of acute gastroenteritis.
114. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with acute gastroenteritis.
115. Define *bowel obstruction*.
116. Discuss the pathophysiology of bowel obstruction.
117. Recognize the signs and symptoms related to bowel obstruction.
118. Describe the management of bowel obstruction.
119. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with bowel obstruction.
120. Define *appendicitis*.
121. Discuss the pathophysiology of appendicitis.
122. Recognize the signs and symptoms related to appendicitis.
123. Describe the management of appendicitis.
124. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with appendicitis.
125. Define *colitis*.
126. Discuss the pathophysiology of colitis.
127. Recognize the signs and symptoms related to colitis.
128. Describe the management of colitis.
129. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with colitis.
130. Define *Crohn's disease*.
131. Discuss the pathophysiology of Crohn's disease.
132. Recognize the signs and symptoms related to Crohn's disease.
133. Describe the management of Crohn's disease.
134. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with Crohn's disease.
135. Define *diverticulitis*.
136. Discuss the pathophysiology of diverticulitis.
137. Recognize the signs and symptoms related to diverticulitis.
138. Describe the management of diverticulitis.
139. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with diverticulitis.
140. Define *hemorrhoids*.
141. Discuss the pathophysiology of hemorrhoids.
142. Recognize the signs and symptoms related to hemorrhoids.
143. Describe the management of hemorrhoids.
144. Integrate pathophysiologic principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with hemorrhoids.
145. Integrate pathophysiologic principles of the patient with a gastrointestinal emergency.
146. Differentiate gastrointestinal emergencies on the basis of assessment findings.
147. Correlate abnormal findings in the assessment with the clinical significance in the patient with abdominal pain.
148. Develop a patient management plan based on field impression in the patient with abdominal pain.

1. Discuss the anatomy and physiology of the urogenital organs and structures.

2. Describe the questioning technique and specific questions the paramedic should use when gathering a focused history in a patient with abdominal pain.
3. Describe the techniques used in performing a comprehensive physical examination of a patient reporting abdominal pain associated with the urologic system.
4. Describe the incidence, morbidity, and mortality rates and risk factors predisposing to urologic emergencies.
5. Describe the etiology, history, and physical findings of acute renal failure.
6. With the patient history and physical examination findings, develop a treatment plan for a patient in acute renal failure.
7. Describe the etiology, history, and physical findings of chronic renal failure.
8. With the patient history and physical examination findings, develop a treatment plan for a patient in chronic renal failure.
9. Define renal dialysis.
10. Discuss the common complication of renal dialysis.
11. Describe the etiology, history, and physical findings of renal calculi.
12. With the patient history and physical examination findings, develop a treatment plan for a patient with renal calculi.
13. Describe the etiology, history, and physical findings of urinary retention.
14. With the patient history and physical examination findings, develop a treatment plan for a patient with urinary retention.
15. Describe the etiology, history, and physical findings of a urinary tract infection.
16. With the patient history and physical examination findings, develop a treatment plan for a patient with a urinary tract infection.
17. Describe the internal and external male anatomy.
18. Describe the incidence and signs and symptoms associated with genital lesions, including genital herpes, syphilis, chancroid lesions, granuloma inguinale, lymphadenoma, genital warts, and Molluscum contagiosum.
19. Discuss the signs and symptoms associated with blunt genital trauma in the male patient.
20. Describe the prehospital care for blunt genital trauma in the male patient.
21. Discuss male genitourinary infections, including epididymitis orchitis, Fournier's gangrene, prostatitis, and urethritis.
22. Describe the signs and symptoms of male genitourinary infections, including epididymitis, orchitis, and Fournier's gangrene.
23. Describe the etiology, history, and physical findings of phimosis and paraphimosis.
24. With the patient history and physical examination findings, develop a treatment plan for a patient with paraphimosis.
25. Describe the etiology, history, and physical findings of priapism.
26. With the patient history and physical examination findings, develop a treatment plan for a patient with priapism.
27. Discuss the epidemiology of benign prostate hypertrophy.
28. Discuss the effects of an enlarged prostate gland, including urinary retention, increased risk of urinary tract infections, and renal failure.
29. Discuss the etiology of testicular masses.
30. Describe the etiology, history, and physical findings of testicular torsion.
31. With the patient history and physical examination findings, develop a treatment plan for a patient with testicular torsion.

1. Discuss and describe the basic anatomy and function of the musculoskeletal system.
2. Discuss the general assessment, physical examination findings, and treatment of patients with musculoskeletal conditions.
3. Discuss the causes, identification, and prehospital management of acute and chronic low back pain.
4. Discuss the causes, identification, and prehospital management of acute and chronic neck pain.
5. Discuss the causes, identification, and prehospital management of overuse injuries.
6. Discuss the causes, identification, and prehospital management of generalized muscle disorders.
7. Discuss the causes, identification, and prehospital management of generalized joint disorders.
8. Discuss the causes, identification, and prehospital management of infectious diseases of the musculoskeletal system.
9. Discuss the causes, identification, and prehospital management of neoplastic disorders of the musculoskeletal system.

10. Discuss the causes, identification, and prehospital management of a child with a limp not associated with trauma.
1. Describe the three layers of the skin, their composition, and their functions.
2. Describe the morphology of primary skin lesions.
3. Describe the morphology of secondary skin lesions.
4. Describe the recognition and treatment of skin cancer.
5. Describe malignant melanoma and how it is best recognized.
6. Recognize and treat decubitus ulcers.
7. Recognize and treat atopic dermatitis.
8. Recognize and treat contact dermatitis.
9. Recognize and treat psoriasis.
10. Recognize and treat impetigo.
11. Recognize and treat folliculitis.
12. Recognize and treat furuncles and carbuncles.
13. Recognize and treat cellulitis.
14. Recognize and treat fungal infections.
15. Recognize and treat *Candida* species infections.
16. Recognize and treat pediculosis.
17. Recognize and treat scabies.
18. Recognize and treat common warts.
19. Recognize and treat *Varicella* species infections.
20. Recognize and treat herpes simplex.
21. Recognize and treat herpes zoster.
22. Recognize and treat urticaria.
23. Recognize and treat erythema multiforme.

1. Describe the etiology, demographics, history, and physical findings for the following conditions:
• Lice
• Impetigo
• Lesions
• Headache
• Bell's palsy
• Ludwig's angina
2. By using the patient history and physical examination findings, develop a treatment plan for patients with the following conditions:
• Lice
• Impetigo
• Lesions
• Headache
• Bell's palsy
• Ludwig's angina
3. Describe the etiology, demographics, history, and physical findings for the following conditions:
• Conjunctivitis
• Inflammation of the eyelids
• Glaucoma
• Central retinal artery occlusion
• Retinal detachment
4. By using the patient history and physical examination findings, develop a treatment plan for patients with the following conditions:
• Conjunctivitis
• Inflammation of the eyelids
• Glaucoma
• Central retinal artery occlusion
• Retinal detachment
5. Describe the etiology, demographics, history, and physical findings for the following conditions:
• Ear foreign bodies
• Vertigo
• Tinnitus
• Otitis externa
6. By using the patient history and physical examination findings, conditions:

• Ear foreign bodies
• Vertigo
• Tinnitus
• Otitis externa

7. Describe the etiology, demographics, history, and physical findings for the following conditions:
• Epistaxis
• Nose foreign bodies
• Piercing
• Rhinitis

8. By using the patient history and physical examination findings, develop a treatment plan for patients with the following conditions:
• Epistaxis
• Nose foreign bodies
• Piercing
• Rhinitis

9. Describe the etiology, demographics, history, and physical findings for the following conditions:
• Thrush
• Broken, missing, or loose teeth
• Sore throat
• Epiglottitis
• Peritonsillar abscess

10. By using the patient history and physical examination findings, develop a treatment plan for patients with the following conditions:
• Thrush
• Broken, missing, or loose teeth
• Sore throat
• Epiglottitis
• Peritonsillar abscess

1. Describe the extent of injury and death associated with toxicologic emergencies.
2. Define *poison, toxicology,* and *toxicologic emergency.*
3. Describe the role of the poison control center in the treatment of toxicologic emergencies.
4. List the four routes of entry of poisons into the body and how they affect managed care of the poisoned patient.
5. Understand the need for an accurate scene size-up to ensure responder safety at toxicologic emergencies.
6. List and use available reference materials for poisonings involving household and industrial chemicals.
7. Describe the general toxidromes that can be used to classify and treat the poisoned patient.
8. Understand the importance of decontaminating patients.
9. Identify the difference between internal and external decontamination.
10. Describe the appropriate uses of activated charcoal for internal decontamination.
11. Identify the available antidotes to poisons and how they are used to treat patients.
12. Identify medications commonly involved in toxicologic emergencies and be able to list common signs and symptoms and treatment procedures that will benefit the patient.
13. Identify chemicals commonly involved in toxicologic emergencies and be able to list common signs and symptoms and treatment procedures that will benefit the patient.
14. Identify wildlife commonly involved in toxicologic emergencies and be able to list common signs and symptoms and treatment procedures that will benefit the patient.
15. Identify plants and mushrooms commonly involved in toxicologic emergencies and be able to list common signs and symptoms and treatment procedures that will benefit the patient.
16. Identify illegal drugs commonly involved in toxicologic emergencies and be able to list common signs and symptoms and treatment procedures that will benefit the patient.
17. Understand the toxicologic effects of alcohol and alcohol abuse and how to treat the signs and symptoms of alcohol poisoning

1. Review the specific anatomy and physiology pertinent to infectious and communicable diseases.
2. Define specific terminology identified with infectious and communicable diseases.
3. Discuss public health principles relevant to infectious and communicable diseases.
4. Identify public health agencies involved in the prevention and management of disease outbreaks.
5. For specific diseases, identify and discuss the issues of personal protection.

6. Describe and discuss the rationale for the various types of personal protective equipment.
7. Discuss what constitutes a significant exposure to an infectious agent.
8. List and describe the steps of an infectious process.
9. List and describe the stages of infectious diseases.
10. List and describe infectious agents, including bacteria, viruses, fungi, protozoans, helminths (worms), and prions.
11. Describe host defense mechanisms against infection.
12. Describe the processes of the immune system defenses, including humoral and cell-mediated immunity.
13. Describe characteristics of the immune system, including the categories of white blood cells, the mononuclear phagocyte system, and the complement system.
14. Describe the assessment of a patient suspected of, or identified as having, an infectious or communicable disease.
15. Discuss the proper disposal of contaminated supplies (e.g., sharps, gauze sponges, tourniquets).
16. Discuss the following relative to the human immunodeficiency virus: causative agent, body systems affected and potential secondary complications, modes of transmission, the seroconversion rate after direct significant exposure, susceptibility and resistance, signs and symptoms, specific patient management and personal protective measures.
17. Discuss hepatitis A (infectious hepatitis), including the causative agent, body systems affected and potential secondary complications, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
18. Discuss hepatitis B (serum hepatitis), including the causative agent, the organ affected and potential secondary complications, routes of transmission, signs and symptoms, patient management and protective measures, and immunization.
19. Discuss the susceptibility and resistance to hepatitis B.
20. Discuss hepatitis C, including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and control measures.
21. Discuss hepatitis D (hepatitis delta virus), including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and control measures.
22. Discuss hepatitis E, including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and control measures.
23. Discuss tuberculosis, including the causative agent, body systems affected and secondary complications, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and control measures.
24. Discuss meningococcal meningitis (spinal meningitis), including causative organisms, tissues affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures.
25. Discuss other infectious agents known to cause meningitis, including *Streptococcus pneumoniae, Haemophilus influenza* type b, and other varieties of viruses.
26. Discuss pneumonia, including causative organisms, body systems affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
27. Discuss tetanus, including the causative organism, the body system affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
28. Discuss rabies and hantavirus as they apply to regional environmental exposures, including the causative organisms, the body systems affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and control measures.
29. Identify pediatric viral diseases.
30. Discuss chickenpox, including the causative organism, the body system affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures.

Affective-
1. Advocate compliance with standards and guidelines by role modeling adherence to universal/ standard precautions and BSI.
2. Value the importance of immunization, especially in children and populations at risk.

3. Value the safe management of a patient with an infectious/ communicable disease.
4. Advocate respect for the feelings of patients, family, and others at the scene of an infectious/ communicable disease.
5. Advocate empathy for a patient with an infectious/ communicable disease.
6. Value the importance of infectious/ communicable disease control.
7. Consistently demonstrate the use of body substance isolation**.**

1. Define *behavior* & distinguish between normal & abnormal behavior.
2. Define *behavioral emergency*.
3. Discuss factors that may alter the behavior or emotional status of an ill or injured individual.
4. Discuss the pathophysiology of psychiatric disorders.
5. Describe appropriate measures to ensure the safety of the patient, paramedic, & others.
6. Correlate the abnormal findings in assessment with the clinical significance in patients using the most commonly abused drugs.
7. Define the following terms:
• Affect
• Anxiety
• Fear
• Open-ended question
• Posture
• Phobia
• Dysphoria
• Euphoria
8. Describe the circumstances when relatives, byst&ers, & others should be removed from the scene.
9. Describe the techniques that facilitate the systematic gathering of information from the disturbed patient.
10. Identify techniques for physical assessment in a patient with behavioral problems.
11. Be able to recognize various psychiatric disorders on the basis of assessment & history of present illness.
12. Integrate pathophysiologic principles with the assessment of the patient with psychiatric disorders.
13. Discuss the prevalence of behavior & psychiatric disorders.
14. Describe the history & physical findings associated with psychiatric disorders.
15. Describe management strategies for various psychiatric disorders.
16. List the clinical uses, street names, pharmacologic characteristics, assessment findings, & management for patients who have taken or been exposed to the following substances:
• Cocaine
• Marijuana
• Methamphetamines
• Barbiturates
• Sedative-hypnotics
• Narcotics or opiates
• Common household substances
• Drugs abused for sexual purposes or gratification
• Alcohols
• Hydrocarbons
• Psychiatric medications
• Newer antidepressants & serotonin syndromes
• Lithium
• Monoamine oxidase inhibitors
• Club drugs
• Hallucinogens
• Dissociatives
17. List situations in which you may have to transport a patient forcibly & against his or her will.
18. List the risk factors for suicide.
19. List behaviors that indicate a patient may be at risk for suicide.
20. Describe the verbal techniques useful in managing the emotionally disturbed patient.
21. Describe methods of restraint that may be necessary in managing the emotionally disturbed patient.
22. Describe the medical & legal considerations for management of emotionally disturbed patients.
23. Describe the condition of restraint asphyxia & why you must never restrain a patient in a prone position.

24. Define the following terms:
• Substance or drug abuse
• Tolerance
• Withdrawal
• Addiction
25. List the most commonly abused drugs by chemical name & street name.
26. Discuss the incidence of drug abuse in the United States.
27. Describe the pathophysiology of commonly abused drugs.
28. Differentiate the various treatments & pharmacologic interventions in the management of the most commonly abused drugs.
29. Integrate pathophysiologic principles & the assessment findings to formulate a field impression & implement a treatment plan for patients using the most commonly abused drugs.
30. Discuss the signs & dangers of cl&estine drug manufacturing laboratories.

Affective-
1. Advocate for empathetic and respectful treatment for individuals experiencing behavioral emergencies.

1. Identify the anatomy of the hematopoietic system.
2. Describe the components of blood and volume and volume control in relation to the hematopoietic system.
3. Identify and describe the blood-forming organs and how and where blood is formed.
4. Describe normal red blood cell production, function, lifespan, and destruction.
5. Explain the significance of the hematocrit regarding red blood cell size and number.
6. Explain the correlations of the red blood cell count, hematocrit, and hemoglobin values.
7. Describe normal white blood cell production, function, and destruction.
8. Identify the characteristics of the inflammatory process.
9. Identify alterations in immunologic response.
10. Describe the number, normal function, types, and lifespan of leukocytes.
11. Identify the difference between cellular and humoral immunity.
12. Describe platelets in regard to normal function, lifespan, and numbers.
13. Describe the components of the hemostatic mechanism.
14. Describe the function of coagulation factors, platelets, and blood vessels necessary for normal coagulation.
15. Describe the intrinsic and extrinsic clotting systems in regard to identification of factor deficiencies in each stage.
16. Define *fibrinolysis*.
17. Describe disseminated intravascular coagulation and its precipitating factors.
18. Identify blood groups.
19. Define *anemia*.
20. Describe the pathology and clinical manifestations and prognosis associated with:
• Aplastic anemia
• Hemoglobinopathy (including sickle cell disease)
• Hemolytic anemia
• Iron-deficiency anemia
• Methemoglobinemia
21. Describe the pathology and clinical manifestations associated with disorders of hemostasis: platelet dysfunction, thrombocytopenia, decreased production, platelet destruction, sequestration, and hemophilia.
22. Describe the pathology and clinical manifestations associated with leukocyte disorders: leukemia, lymphoma, and multiple myeloma.
23. Identify the components of physical assessment as they relate to the hematologic system and integrate pathophysiologic principles into the assessment of a patient with a hematologic disease.

Overview of Semester 2 Class Schedule:

	NRPM 108	NRPM 109	NRPM 111	NPRM 111L	NRPM 110	NRPM 112	NRPM 113		Total hrs/day
WEEK #									
1	3		5						8
2		2	5		1				8
3		2	5		1				8
4		2		5	1				8
5				5			3		8
6				5			3		8
7	5						3.5		8.5
8	5						3.5		8.5
9	5				1		2.5		8.5
10	5				1		2.5		8.5
11		6			1		1.5		8.5
12		6			1		1.5		8.5
13		6			1		1.5		8.5
14					1		7.5		8.5
15					1		7.5		8.5
16							8.5		8.5
17						4	4.5		8.5
18						4	4.5		8.5
	23	24	15	15	10	8	55		150

Course Legend:	Classes will meet on Tuesdays		
	Req. Hrs:	**Start Time**	**End Time**
NRPM 108: Basic ECG Interpretation and Cardiopulmonary Emergency Care	23	900	~1400
NRPM 109: Advanced ECG Interpretation & Cardiopulmonary Emergency Care	24	900	~1500
NRPM 111: Maternal and Child Emergency Care	15	~1300	~1800
NRPM 111L: Maternal and Child Emergency Care Lab	15	~1300	~1800
NRPM 110: Medical Emergency Pre-Hospital Care	10	~1500	~1600
NRPM 112: Special Considerations in Pre-Hospital Care	8	900	1300
*NRPM 113: Simulation Lab 1	55	~1300	1830
**NRPM 114: Clinical Practicum 1	72	Based on student avail.	
	222		