Print Date: 7/30/14

Course Objectives/Course Outline
Spokane Community College

Course Title: **General Medicine II**
Prefix and Course Number: **EMS 220**

Course Learning Outcomes:
By the end of this course, a student should be able to:

– Continue from the first quarter to be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with general medical problems.

Course Outline:
General Medicine II

I. Describe the incidence, morbidity and mortality of toxic emergencies. (C-1)
II. Identify the risk factors most predisposing to toxic emergencies. (C-1)
III. Discuss the anatomy and physiology of the organs and structures related to toxic emergencies. (C-1)
IV. Describe the routes of entry of toxic substances into the body. (C-1)
V. Discuss the role of the Poison Control Center in the United States. (C-1)
VI. List the toxic substances that are specific to your region. (C-1)
VII. Discuss the pathophysiology of the entry of toxic substances into the body. (C-1)
VIII. Discuss the assessment findings associated with various toxidromes. (C-1)
IX. Identify the need for rapid intervention and transport of the patient with a toxic substance emergency. (C-1)
X. Discuss the management of toxic substances. (C-1)
XI. Define poisoning by ingestion. (C-1)
XII. List the most common poisonings by ingestion. (C-1)
XIII. Describe the pathophysiology of poisoning by ingestion. (C-1)
XIV. Recognize the signs and symptoms related to the most common poisonings by ingestion. (C-1)
XV. Correlate the abnormal findings in assessment with the clinical significance in the patient with the most common poisonings by ingestion. (C-1)
XVI. Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by ingestion. (C-3)
XVII. Discuss the factors affecting the decision to induce vomiting in a patient with ingested poison. (C-1)
XVIII. Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with the most common poisonings by ingestion. (C-3)
XIX. Define poisoning by inhalation. (C-1)
XX. List the most common poisonings by inhalation. (C-1)
XXI. Describe the pathophysiology of poisoning by inhalation. (C-1)
XXII. Recognize the signs and symptoms related to the most common poisonings by inhalation. (C-1)
XXIII. Correlate the abnormal findings in assessment with the clinical significance in patients with the most

common poisonings by inhalation. (C-1)

XXIV. Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by inhalation. (C-3)

XXV. Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with the most common poisonings by inhalation. (C-3)

XXVI. Define poisoning by injection. (C-1)

XXVII. List the most common poisonings by injection. (C-1)

XXVIII. Describe the pathophysiology of poisoning by injection. (C-1)

XXIX. Recognize the signs and symptoms related to the most common poisonings by injection. (C-1)

XXX. Correlate the abnormal findings in assessment with the clinical significance in the patient with the most common poisonings by injection. (C-3)

XXXI. Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by injection. (C-3)

XXXII. Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with the most common poisonings by injection. (C-3)

XXXIII. Define poisoning by surface absorption. (C-1)

XXXIV. List the most common poisonings by surface absorption. (C-1)

XXXV. Describe the pathophysiology of poisoning by surface absorption. (C-1)

XXXVI. Recognize signs and symptoms related to the most common poisonings by surface absorption. (C-1)

XXXVII. Correlate the abnormal findings in assessment with the clinical significance in patients with the most common poisonings by surface absorption. (C-3)

XXXVIII. Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by surface absorption. (C-3)

XXXIX. Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by surface absorption. (C-3)

XL. Define poisoning by overdose. (C-1)

XLI. List the most common poisonings by overdose. (C-1)

XLII. Describe the pathophysiology of poisoning by overdose. (C-1)

XLIII. Recognize the signs and symptoms related to the most common poisonings by overdose. (C-1)

XLIV. Correlate the abnormal findings in assessment with the clinical significance in patients with the most common poisonings by overdose. (C-3)

XLV. Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by overdose. (C-3)

XLVI. Integrate pathophysiological principles and the assessment findings to formulate a field impression and

XLVII. implement a treatment plan for patients with the most common poisonings by overdose. (C-3)

XLVIII. Define drug abuse. (C-1)

XLIX. Discuss the incidence of drug abuse in the United States. (C-1)

L. List the most commonly abused drugs (both by chemical name and street names). (C-1)

LI. Describe the pathophysiology of commonly used drugs. (C-1)

LII. Recognize the signs and symptoms related to the most commonly abused drugs. (C-1)

LIII. Correlate the abnormal findings in assessment with the clinical significance in patients using the most commonly abused drugs. (C-3)

LIV. Differentiate among the various treatments and pharmacological interventions in the management of the most commonly abused drugs. (C-3)

LV. Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients using the most commonly abused drugs. (C-3)

LVI. List the clinical uses, street names, pharmacology, assessment finding and management for patient who have taken the following drugs or been exposed to the following substances: (C-1)

1. Cocaine
2. Marijuana and cannabis compounds
3. Amphetamines and amphetamine-like drugs
4. Barbiturates
5. Sedative-hypnotics
6. Cyanide
7. Narcotics/ opiates
8. Cardiac medications
9. Caustics
10. Common household substances
11. Drugs abused for sexual purposes/ sexual gratification
12. Carbon monoxide
13. Alcohols
14. Hydrocarbons
15. Psychiatric medications
16. Newer anti-depressants and serotonin syndromes
17. Lithium
18. MAO inhibitors
19. Non-prescription pain medications
    - (1) Nonsteroidal anitinflammatory agents
    - (2) Salicylates
    - (3) Acetaminophen
20. Theophylline
21. Metals
22. Plants and mushrooms

LVII. Discuss common causative agents, pharmacology, assessment findings and management for a patient with food poisoning. (C-1)

LVIII. Discuss common offending organisms, pharmacology, assessment findings and management for a patient with a bite or sting. (C-1)

LIX. Integrate pathophysiological principles of the patient with a toxic substance exposure. (C-1)

LX. Differentiate between toxic substance emergencies based on assessment findings. (C-3)

LXI. Correlate abnormal findings in the assessment with the clinical significance in the patient exposed to a toxic substance. (C-3)

LXII. Develop a patient management plan based on field impression in the patient exposed to a toxic substance. (C-3)

LXIII. Identify the anatomy of the hematopoietic system. (C-1)

LXIV. Describe volume and volume-control related to the hematopoietic system. (C-1)

LXV. Identify and describe the blood-forming organs. (C-1)

LXVI. Describe normal red blood cell (RBC) production, function and destruction. (C-1)
LXVII. Explain the significance of the hematocrit with respect to red cell size and number. (C-1)
LXVIII. Explain the correlation of the RBC count, hematocrit and hemoglobin values. (C-1)
LXIX. Define anemia. (C-1)
LXX. Describe normal white blood cell (WBC) production, function and destruction. (C-1)
LXXI. Identify the characteristics of the inflammatory process. (C-1)
LXXII. Identify the difference between cellular and humoral immunity. (C-1)
LXXIII. Identify alterations in immunologic response. (C-1)
LXXIV. Describe the number, normal function, types and life span of leukocytes. (C-1)
LXXV. List the leukocyte disorders. (C-1)
LXXVI. Describe platelets with respect to normal function, life span and numbers. (C-1)
LXXVII. Describe the components of the hemostatic mechanism. (C-1)
LXXVIII. Describe the function of coagulation factors, platelets and blood vessels necessary for normal coagulation. (C-1)
LXXIX. Describe the intrinsic and extrinsic clotting systems with respect to identification of factor deficiencies in each stage. (C-3)
LXXX. Identify blood groups. (C-1)
LXXXI. Describe how acquired factor deficiencies may occur. (C-3)
LXXXII. Define fibrinolysis. (C-1)
LXXXIII. Identify the components of physical assessment as they relate to the hematologic system. (C-1)
LXXXIV. Describe the pathology and clinical manifestations and prognosis associated with: (C-3)
1. Anemia
2. Leukemia
3. Lymphomas
4. Polycythemia
5. Disseminated intravascular coagulopathy
6. Hemophilia
7. Sickle cell disease
8. Multiple myeloma

LXXXV. Integrate pathophysiological principles into the assessment of a patient with hematologic disease. (C-3)
LXXXVI. Review the specific anatomy and physiology pertinent to infectious and communicable diseases. (C-1)
LXXXVII. Define specific terminology identified with infectious/ communicable diseases. (C-1)
LXXXVIII. Discuss public health principles relevant to infectious/ communicable disease. (C-1)
LXXXIX. Identify public health agencies involved in the prevention and management of disease outbreaks. (C-1)
XC. List and describe the steps of an infectious process. (C-1)
XCI. Discuss the risks associated with infection. (C-1)
XCII. List and describe the stages of infectious diseases. (C-1)
XCIII. List and describe infectious agents, including bacteria, viruses, fungi, protozoans, and helminths (worms). (C-1)
XCIV. Describe host defense mechanisms against infection. (C-1)
XCV. Describe characteristics of the immune system, including the categories of white blood cells, the reticuloendothelial system (RES), and the complement system. (C-1)
XCVI. Describe the processes of the immune system defenses, to include humoral and cell-mediated immunity. (C-1)
XCVII. In specific diseases, identify and discuss the issues of personal isolation. (C-1)
XCVIII. Describe and discuss the rationale for the various types of PPE. (C-1)

XCIX. Discuss what constitutes a significant exposure to an infectious agent. (C-1)

C. Describe the assessment of a patient suspected of, or identified as having, an infectious/ communicable disease. (C-1)

CI. Discuss the proper disposal of contaminated supplies (sharps, gauze sponges, tourniquets, etc.). (C-1)

CII. Discuss disinfection of patient care equipment, and areas in which care of the patient occurred. (C-1)

CIII. Discuss the following relative to HIV - 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, and immunization. (C-1)

CIV. 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. (C-1)

CV. 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. (C-1)

CVI. Discuss the susceptibility and resistance to Hepatits B. (C-1)

CVII. 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 immunization and control measures. (C-1)

CVIII. 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 immunization and control measures. (C-1)

CIX. 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 immunization and control measures. (C-1)

CX. 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 immunization and control measures. (C-1)

CXI. 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. (C-1)

CXII. Discuss other infectious agents known to cause meningitis including streptococcus pneumonia, hemophilus influenza type b, and other varieties of viruses. (C-1)

CXIII. Discuss pneumonia, including causative organisms, body systems affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and

immunization. (C-1)

CXIV. 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. (C-1)

CXV. 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 immunization and control measures. (C-1)

CXVI. Identify pediatric viral diseases. (C-3)

CXVII. 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. (C-1)

CXVIII. Discuss mumps, including the causative organism, the body organs and systems affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXIX. Discuss rubella (German measles), including the causative agent, the body tissues and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXX. Discuss measles (rubeola, hard measles), including the causative organism, the body tissues, organs, and systems affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXXI. Discuss the importance of immunization, and those diseases, especially in the pediatric population, which warrant widespread immunization (MMR). (C-1)

CXXII. Discuss pertussis (whooping cough), including the causative organism, the body organs affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXXIII. Discuss influenza, including causative organisms, the body system affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXXIV. Discuss mononucleosis, including the causative organisms, the body regions, organs, and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXXV. Discuss herpes simplex type 1, including the causative organism, the body regions and system affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

CXXVI. Discuss the characteristics of, and organisms associated with, febrile and afebrile respiratory disease, to include bronchiolitis, bronchitis, laryngitis, croup, epiglottitis, and the common cold. (C-1)

CXXVII. Define behavior and distinguish between normal and abnormal behavior. (C-1)

CXXVIII. Define behavioral emergency. (C-1)

CXXIX. Discuss the prevalence of behavior and psychiatric disorders. (C-1)

CXXX. Discuss the factors that may alter the behavior or emotional status of an ill or injured individual. (C-1)

CXXXI. Describe the medical legal considerations for management of emotionally disturbed patients. (C-1)

CXXXII. Discuss the pathophysiology of behavioral and psychiatric disorders. (C-1)

CXXXIII. Describe the overt behaviors associated with behavioral and psychiatric disorders. (C-1)

CXXXIV. Define the following terms: (C-1)

a. Affect
2. Anger
3. Anxiety
4. Confusion
5. Depression
6. Fear
7. Mental status
8. Open-ended question
9. Posture

CXXXV. Describe the verbal techniques useful in managing the emotionally disturbed patient. (C-1)

CXXXVI. List the reasons for taking appropriate measures to ensure the safety of the patient, paramedic and others. (C-1)

CXXXVII. Describe the circumstances when relatives, bystanders and others should be removed from the scene. (C-1)

CXXXVIII. Describe the techniques that facilitate the systematic gathering of information from the disturbed patient. (C-1)

CXXXIX. List situations in which the EMT-P is expected to transport a patient forcibly and against his will. (C-1)

CXL. Identify techniques for physical assessment in a patient with behavioral problems. (C-1)

CXLI. Describe methods of restraint that may be necessary in managing the emotionally disturbed patient. (C-1)

CXLII. List the risk factors for suicide. (C-1)

CXLIII. List the behaviors that may be seen indicating that patient may be at risk for suicide. (C-1)

CXLIV. Integrate the pathophysiological principles with the assessment of the patient with behavioral and psychiatric disorders. (C-3)

CXLV. Differentiate between the various behavioral and psychiatric disorders based on the assessment and history. (C-3)

CXLVI. Formulate a field impression based on the assessment findings. (C-3)

CXLVII. Develop a patient management plan based on the field impressions. (C-3)

CXLVIII. Review the anatomic structures and physiology of the female reproductive system. (C-1)

CXLIX. Identify the normal events of the menstrual cycle. (C-1)

CL. Describe how to assess a patient with a gynecological complaint. (C-1)

CLI. Explain how to recognize a gynecological emergency. (C-1)

CLII. Describe the general care for any patient experiencing a gynecological emergency. (C-1)

CLIII. Describe the pathophysiology, assessment, and management of specific gynecological emergencies. (C-1)

CLIV. Review the anatomic structures and physiology of the reproductive system. (C-1)

CLV. Identify the normal events of pregnancy. (C-1)

CLVI. Describe how to assess an obstetrical patient. (C-1)
CLVII. Identify the stages of labor and the paramedic's role in each stage. (C-1)
CLVIII. Differentiate between normal and abnormal delivery. (C-3)
CLIX. Identify and describe complications associated with pregnancy and delivery. (C-1)
CLX. Identify predelivery emergencies. (C-1)
CLXI. State indications of an imminent delivery. (C-1)
CLXII. Explain the use of the contents of an obstetrics kit. (C-2)
CLXIII. Differentiate the management of a patient with predelivery emergencies from a normal delivery. (C-3)
CLXIV. State the steps in the predelivery preparation of the mother. (C-1)
CLXV. Establish the relationship between body substance isolation and childbirth. (C-3)
CLXVI. State the steps to assist in the delivery of a newborn. (C-1)
CLXVII. Describe how to care for the newborn. (C-1)
CLXVIII. Describe how and when to cut the umbilical cord. (C-1)
CLXIX. Discuss the steps in the delivery of the placenta. (C-1)
CLXX. Describe the management of the mother post-delivery. (C-1)
CLXXI. Summarize neonatal resuscitation procedures. (C-1)
CLXXII. Describe the procedures for handling abnormal deliveries. (C-1)
CLXXIII. Describe the procedures for handling complications of pregnancy. (C-1)
CLXXIV. Describe the procedures for handling maternal complications of labor. (C-1)
CLXXV. Describe special considerations when meconium is present in amniotic fluid or during delivery. (C-1)
CLXXVI. Describe special considerations of a premature baby. (C-1)