

## FLORIDA STATE COLLEGE AT JACKSONVILLE

## COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: HIM 1436

COURSE TITLE: Pathophysiology II

PREREQUISITE(S): HIM 1435

COREQUISITE(S): None

CREDIT HOURS: 2

CONTACT HOURS/WEEK: 2

CONTACT HOUR BREAKDOWN:

Lecture/Discussion: 2

Laboratory:

Other \_\_\_\_\_:

FACULTY WORKLOAD POINTS: 2

STANDARDIZED CLASS  
SIZE ALLOCATION: 24

CATALOG COURSE DESCRIPTION: This course presents the nature and cause of human diseases; the study of the etiology, signs and symptoms, diagnostic evaluation procedures, complications, treatment, management, and prognosis of disease. Health record documentation is incorporated. A parallel course to BSC 2086C covering: basic concepts of altered status, growth and development, as well as the nervous, endocrine, reproductive, respiratory, and urinary systems.

SUGGESTED TEXT(S):

Gould, Barbara E. Pathophysiology for the Health-Related Processions. Philadelphia, PA: W.B. Saunders, current edition

Woodrow, Ruth. Essentials of Pharmacology for Health Occupations. Albany, NY: Delmar, current edition.

Taber's Cyclopedic Medical Dictionary, Philadelphia, PA: F.A. Davis Company, current edition.

Physician's Desk Reference, current edition

Davis' Drug Guide, Philadelphia, PA: F.A. Davis Company, current edition.

IMPLEMENTATION DATE: Fall Term, 2002 (20031)

REVIEW OR MODIFICATION DATE: Spring Term, 2006 (20062)  
Fall Term, 2008 (20091) - Outline Review Process 2007

COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Altered Status/Growth and Development	6
A. Brief Introduction and Overview of the Course	
B. Congenital and Genetic Disorders	
1. Review of Genetic Control	
2. Congenital Defects	
3. Genetic Disorders	
a. Single-Gene Disorders	
1) Autosomal Recessive Disorders	
2) Autosomal Dominant Disorders	
3) X-linked Recessive Disorders	
b. Chromosomal Disorders	
c. Multifactorial Disorders	
4. Developmental Disorders	
5. Diagnostic Tools	
6. Example: Down's Syndrome	
C. Health Problems Associated with Adolescence	
1. Review of Changes of Adolescence	
2. Musculoskeletal Abnormalities	
a. Kyphosis and Lordosis	
b. Scoliosis	
c. Osteomyelitis	
d. Juvenile Rheumatoid Arthritis	
3. Eating Disorders	
a. Anorexia Nervosa	
b. Bulimia Nervosa	
4. Skin Disorders	
a. Acne Vulgaris	
5. Infection	
a. Infectious Mononucleosis	
6. Disorders Affecting Sexual Development	
a. Chromosomal Disorders	
b. Tumors	
c. Menstrual Abnormalities	
D. Effects of Pregnancy	
1. Fetal Development	
2. Significant Pathological Changes During Pregnancy	
a. Diagnosis of Pregnancy	
b. Physiologic Changes and Their Implications	
1) Hormonal Changes	
2) Reproductive System Changes	
3) Weight Gain and Nutrition	
4) Digestive System Changes	
5) Musculoskeletal Changes	
6) Cardiovascular Changes	
c. Potential Complications of Pregnancy	

CONTACT HOURS  
PER TOPIC

## COURSE TOPICS (continued)

- 1) Ectopic Pregnancy
  - 2) Pregnancy-Induced Hypertension:  
Preeclampsia and Eclampsia
  - 3) Placental Problems
  - 4) Blood-Clotting Problems
    - a) Thrombophlebitis and Thromboembolism
    - b) Disseminated Intravascular Coagulation
  - 5) Rh Incompatibility
  - 6) Infection
  - 7) Adolescent Pregnancy
- E. Aging and the Disease Process
1. The Aging Process
  2. Significant Physiologic Changes with Aging
    - a. Hormonal Changes
    - b. Reproductive System Changes
    - c. Cardiovascular Changes
    - d. Musculoskeletal Changes
    - e. Respiratory Changes
    - f. Neurologic Changes
    - g. Gastrointestinal Changes and Nutrition
    - h. Urinary System Changes
  3. Other Factors
  4. Pharmacology: Drugs and Geriatrics
- F. Effects of Immobility
1. Musculoskeletal Effects
  2. Cutaneous Effects
  3. Cardiovascular Effects
  4. Respiratory Effects
  5. Gastrointestinal Effects
  6. Urinary Effects
  7. Effects on Children
- G. The Influence of Stress
1. Review of the Stress Response
  2. Stress and Disease
    - a. Potential Effects of Prolonged or Severe Stress
    - b. Stress-Related Disorders
    - c. Coping with Stress
- H. Pain
1. Causes of Pain
  2. Pain Pathways
  3. Theory of Pain and Pain Control
  4. Characteristics of Pain
    - a. Signs and Symptoms
    - b. Referred Pain

CONTACT HOURS  
PER TOPIC

## COURSE TOPICS (continued)

- c. Factors Affecting Pain Perception and Response
    - d. Young Children and Pain
  - 5. Acute Pain
  - 6. Chronic Pain
  - 7. Headache
  - 8. Pain Control
    - a. Methods of Managing Pain
    - b. Anesthesia
  - 9. Pharmacology: Analgesics, Sedatives, and Hypnotics
  - 10. Pharmacology: Preoperative Medications and Anesthetics
- I. Substance Abuse
  - 1. Terminology
  - 2. Predisposing Factors
  - 3. Recognition of Abuse
  - 4. Potential Complications of Substance Abuse
    - a. Overdose
    - b. Withdrawal
    - c. Pregnancy
    - d. Cardiovascular Problems
    - e. Psychedelic Experiences
    - f. Infection
    - g. Alcohol
      - 1) Cirrhosis (Laënnec's Cirrhosis)
      - 2) Nervous System Damage
  - 5. Assistance with Substance Abuse
  - 6. Pharmacology: Psychotropic Medications, Alcohol, Drug Abuse
- J. Environmental Hazards
  - 1. Chemicals
    - a. Heavy Metals
    - b. Inhalants
  - 2. Physical Agents
    - a. Hyperthermia
    - b. Hypothermia
    - c. Radiation
    - d. Noise
  - 3. Biologic Agents
    - a. Bites and Stings
    - b. Food Poisoning
- K. Web Sites: Representative sites

## II: Neurologic Disorders &amp; Special Senses

6

- A. Review of the Nervous System
  - 1. The Brain
  - 2. The Spinal Cord and Peripheral Nerves

## COURSE TOPICS (continued)

3. The Neuron and Conduction of Impulses
4. The Autonomic Nervous System
- B. General Effects of Neurologic Dysfunction
  1. Local (Focal) Effects
  2. Supratentorial and Infratentorial Lesions
  3. Left and Right Hemispheres
  4. Level of Consciousness
  5. Motor Dysfunction
  6. Sensory Deficits
  7. Visual Loss - Hemianopia
  8. Language Disorders
  9. Seizures
  10. Increased Intracranial Pressure
    - a. Early Signs
    - b. Vital Signs
    - c. Visual Signs of Intracranial Pressure
    - d. Changes in Cerebrospinal Fluid
    - e. Herniation
- C. Acute Neurologic Problems
  1. Brain Tumors
  2. Vascular Disorders
    - a. Transient Ischemic Attacks
    - b. Cerebral Vascular Accidents
    - c. Cerebral Aneurysms
  3. Infections
    - a. Meningitis
    - b. Brain Abscess
    - c. Encephalitis
    - d. Infection-Related Syndromes
  4. Head Injuries
  5. Seizure Disorders
- D. Congenital and Genetic Neurologic Disorders
  1. Hydrocephalus
  2. Spina Bifida
  3. Cerebral Palsy
- E. Chronic Degenerative Disorders
  1. Multiple Sclerosis
  2. Parkinson's Disease (Paralysis Agitans)
  3. Amyotrophic Lateral Sclerosis  
(Lou Gehrig's Disease)
  4. Myasthenia Gravis
  5. Huntington's Disease
  6. Alzheimer's Disease
- F. Spinal Cord Problems
  1. Herniated Intervertebral Disc

CONTACT HOURS  
PER TOPIC

## COURSE TOPICS (continued)

- 2. Spinal Cord Injury
  - G. Mental Disorders
    - 1. Schizophrenia
    - 2. Depression
    - 3. Panic Disorder
  - H. Disorders of the Eye and Ear
    - 1. The Eye
      - a. Review of Normal Structure and Function
      - b. Diagnostic Tests
      - c. Structural Defects
      - d. Infections and Trauma
      - e. Glaucoma
      - f. Cataracts
      - g. Detached Retina
    - 2. The Ear
      - a. Review of Normal Structure and Function
      - b. Hearing Loss
      - c. Ear Infections
      - d. Otosclerosis
      - e. Meniere's Syndrome
  - I. Pharmacology: Autonomic Nervous System Drugs
  - J. Pharmacology: Eye Medications
  - K. Pharmacology: Anticonvulsants and Antiparkinsonian Drugs
  - L. Case Studies and Health Record Documentation
  - M. Web Sites: Representative sites
- III: Endocrine Disorders 4
- A. Review of the Endocrine System
  - B. Endocrine Disorders
    - 1. Diagnostic Tests
    - 2. Treatment
  - C. Parathyroid Hormone and Calcium
  - D. Insulin and Diabetes Mellitus
    - 1. Comparison of Type I (IDDM) and Type II (NIDDM)
    - 2. Pathophysiology
      - a. Initial Stages
      - b. Progressive Effects
    - 3. Signs and Symptoms
    - 4. Diagnostic Tests
    - 5. Treatment
    - 6. Complications
      - a. Acute
      - b. Chronic
  - E. Pituitary Hormones
    - 1. Growth Hormone

CONTACT HOURS  
PER TOPIC

## COURSE TOPICS (continued)

- |   |          |
|---|----------|
| <ul style="list-style-type: none"> <li>F. Antidiuretic Hormone           <ul style="list-style-type: none"> <li>1. Diabetes Insipidus</li> <li>2. Inappropriate ADH Syndrome</li> </ul> </li> <li>G. Thyroid Disorders           <ul style="list-style-type: none"> <li>1. Goiter</li> <li>2. Hyperthyroidism (Graves' Disease)</li> <li>3. Hypothyroidism</li> </ul> </li> <li>H. Adrenal Glands           <ul style="list-style-type: none"> <li>1. Adrenal Medulla</li> <li>2. Adrenal Cortex</li> </ul> </li> <li>I. Pharmacology: Endocrine System Drugs</li> <li>J. Case Studies and Health Record Documentation</li> <li>K. Web Sites: Representative sites</li> </ul>   | <p>4</p> |
| <p>IV: Reproductive System Disorders</p> <ul style="list-style-type: none"> <li>A. Disorders of the Male Reproductive System           <ul style="list-style-type: none"> <li>1. Review of the Normal Male Reproductive System               <ul style="list-style-type: none"> <li>a. Structures and Function</li> <li>b. Hormones</li> </ul> </li> <li>2. Infertility</li> <li>3. Congenital Abnormalities of the Penis               <ul style="list-style-type: none"> <li>a. Epispadias and Hypospadias</li> </ul> </li> <li>4. Disorders of the Testes and Scrotum               <ul style="list-style-type: none"> <li>a. Cryptorchidism</li> <li>b. Hydrocele, Spermatocele, and Varicocele</li> </ul> </li> <li>5. Inflammation and Infections               <ul style="list-style-type: none"> <li>a. Prostatitis</li> </ul> </li> <li>6. Tumors               <ul style="list-style-type: none"> <li>a. Benign Prostatic Hypertrophy</li> <li>b. Cancer of the Prostate</li> <li>c. Cancer of the Testes</li> </ul> </li> </ul> </li> <li>B. Disorders of the Female Reproductive System           <ul style="list-style-type: none"> <li>1. Review of the Normal Female Reproductive System               <ul style="list-style-type: none"> <li>a. Structure and Function</li> <li>b. Hormones and the Menstrual Cycle</li> </ul> </li> <li>2. Infertility</li> <li>3. Structural Abnormalities</li> <li>4. Menstrual Disorders               <ul style="list-style-type: none"> <li>a. Menstrual Abnormalities</li> <li>b. Endometriosis</li> </ul> </li> <li>5. Infections               <ul style="list-style-type: none"> <li>a. Candidiasis</li> <li>b. Pelvic Inflammatory Disease (PID)</li> </ul> </li> <li>6. Benign Tumors               <ul style="list-style-type: none"> <li>a. Leiomyoma (Fibroids)</li> </ul> </li> </ul> </li> </ul> | <p>4</p> |

COURSE TOPICS (continued)	<u>CONTACT HOURS PER TOPIC</u>
<ul style="list-style-type: none"> <li>b. Ovarian Cysts</li> <li>c. Fibrocystic Breast Disease</li> </ul>	
7. Malignant Tumors	
<ul style="list-style-type: none"> <li>a. Carcinoma of the Breast</li> <li>b. Carcinoma of the Cervix</li> <li>c. Carcinoma of the Uterus (Endometrial Carcinoma)</li> </ul>	
C. Sexually Transmitted Diseases (STDs)	
1. Bacterial Infections	
<ul style="list-style-type: none"> <li>a. Chlamydial Infection</li> <li>b. Gonorrhea</li> <li>c. Syphilis</li> </ul>	
2. Viral Infections	
<ul style="list-style-type: none"> <li>a. Genital Herpes</li> <li>b. Condylomata Acuminata (Genital Warts)</li> </ul>	
3. Protozoan Infection	
<ul style="list-style-type: none"> <li>a. Trichomoniasis</li> </ul>	
D. Pharmacology: Reproductive System Drugs	
E. Case Studies and Health Record Documentation	
F. Web Sites: Representative sites	
V: Respiratory Disorders	5
A. Review of Normal Structures in the Respiratory System	
<ul style="list-style-type: none"> <li>1. Purpose and General Organization</li> <li>2. Structures in the Respiratory System</li> <li>3. Ventilation</li> <li>4. Gas Exchange</li> <li>5. Diagnostic Tests</li> </ul>	
B. General Manifestations of Respiratory Disease	
C. Infectious Diseases	
1. Upper Respiratory Tract Infections	
<ul style="list-style-type: none"> <li>a. Common Cold (Infectious Rhinitis)</li> <li>b. Sinusitis</li> <li>c. Laryngotracheobronchitis (Croup)</li> <li>d. Epiglottitis</li> <li>e. Influenza (Flu)</li> </ul>	
2. Lower Respiratory Tract Infections	
<ul style="list-style-type: none"> <li>a. Bronchiolitis (RSV Infection)</li> <li>b. Pneumonia</li> <li>c. Tuberculosis</li> </ul>	
D. Obstructive Disease	
<ul style="list-style-type: none"> <li>1. Cystic Fibrosis</li> <li>2. Lung Cancer</li> <li>3. Aspiration</li> <li>4. Asthma</li> </ul>	
E. Chronic Obstructive Pulmonary Disease	

COURSE TOPICS (continued)	<u>CONTACT HOURS PER TOPIC</u>
<ul style="list-style-type: none"> <li>1. Emphysema</li> <li>2. Chronic Bronchitis</li> <li>3. Bronchiectasis</li> <li>F. Vascular Disorders               <ul style="list-style-type: none"> <li>1. Pulmonary Edema</li> <li>2. Pulmonary Embolus</li> </ul> </li> <li>G. Expansion Disorders               <ul style="list-style-type: none"> <li>1. Atelectasis</li> <li>2. Pleural Effusion</li> <li>3. Pneumothorax</li> <li>4. Flail Chest</li> <li>5. Infant Respiratory Distress Syndrome</li> <li>6. Adult Respiratory Distress Syndrome</li> <li>7. Acute Respiratory Failure</li> </ul> </li> <li>H. Pharmacology: Respiratory System Drugs and Antihistamines</li> <li>I. Case Studies and Health Record Documentation</li> <li>J. Web Sites: Representative sites</li> </ul>	
<p>VI: Urinary System Disorders</p> <ul style="list-style-type: none"> <li>A. Review of the Urinary System</li> <li>B. Incontinence and Retention</li> <li>C. Diagnostic Tests           <ul style="list-style-type: none"> <li>1. Urinalysis</li> <li>2. Blood Tests</li> <li>3. Other Tests</li> </ul> </li> <li>D. Diuretic Drugs</li> <li>E. Dialysis</li> <li>F. Disorders of the Urinary System           <ul style="list-style-type: none"> <li>1. Urinary Tract Infections</li> <li>2. Inflammatory Disorders               <ul style="list-style-type: none"> <li>a. Glomerulonephritis (Acute Poststreptococcal Glomerulonephritis)</li> <li>b. Nephrotic Syndrome (Nephrosis)</li> </ul> </li> </ul> </li> <li>G. Urinary Tract Obstructions           <ul style="list-style-type: none"> <li>1. Urolithiasis (Calculi or Kidney Stones)\</li> <li>2. Tumors               <ul style="list-style-type: none"> <li>a. Renal Cell Carcinoma</li> <li>b. Bladder Cancer</li> </ul> </li> </ul> </li> <li>H. Vascular Disorders           <ul style="list-style-type: none"> <li>1. Nephrosclerosis</li> </ul> </li> <li>I. Renal Failure           <ul style="list-style-type: none"> <li>1. Acute Renal Failure</li> <li>2. Chronic Renal Failure</li> </ul> </li> <li>J. Pharmacology: Urinary System Drugs</li> <li>K. Case Studies and Health Record Documentation</li> <li>L. Sites: Representative sites</li> </ul>	5

PROGRAM TITLE: Health Information Management  
 COURSE TITLE: Pathophysiology II  
 AS HIM CIP NUMBER: 0317.050600

LIST PERFORMANCE STANDARD ADDRESSED:

Note: The most recent HIM Framework is from 1998 and does not include specific Pathophysiology requirements as indicated in the Coder Framework.

04.0 DEMONSTRATE AN UNDERSTANDING OF AND APPLY WELLNESS AND DISEASE CONCEPTS -- The student will be able to:

- 04.01 Develop a basic understanding of the structure and function of the body systems.
- 04.02 Identify personal health practices and environmental factors which affect optimal function of each of the major body systems.
- 04.03 Identify psychological reactions to illness including defense mechanisms.
- 04.04 Recognize the steps in the grief process.
- 04.05 Explain basic concepts of positive self-image, wellness and stress.
- 04.06 Develop a wellness and stress control plan that can be used in personal and professional life.
- 04.07 Explain the nutrition pyramid.

ATD Medical Coder/Biller CIP NUMBER: 0317.050603

LIST PERFORMANCE STANDARD ADDRESSED:

04.0 DEMONSTRATE AN UNDERSTANDING OF AND APPLY WELLNESS AND DISEASE CONCEPTS -- The student will be able to:

- 04.01 Develop a basic understanding of the structure and function of the body systems.
- 04.02 Identify personal health practices and environmental factors which affect optimal function of each of the major body systems.
- 04.03 Identify psychological reactions to illness including defense mechanisms.
- 04.04 Recognize the steps in the grief process.
- 04.05 Explain basic concepts of positive self-image, wellness and stress.
- 04.06 Develop a wellness and stress control plan that can be used in personal and professional life.
- 04.07 Explain the nutrition pyramid.

14.0 DEMONSTRATE AN UNDERSTANDING OF THE FUNDAMENTALS OF DISEASE PROCESS IN RELATIONSHIP TO THE HUMAN BODY, INCLUDING PHARMACOLOGY--The student will be able to:

- 14.01 Demonstrate an understanding of the predisposing factors and direct causes of disease as they relate to the human body.
- 14.02 Demonstrate an understanding of the general morphology of organisms and their role in the disease process.
- 14.03 Demonstrate an understanding of the pathogenesis of diseases of all the body systems.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

<i>Section 1</i>	
COURSE PREFIX AND NUMBER: <b>HIM 1436</b>	SEMESTER CREDIT HOURS: <b>2</b>
COURSE TITLE: <b>Pathophysiology II</b>	

*Section 2*  
TYPE OF COURSE: (Click on the box to check all that apply)

<input type="checkbox"/> AA Elective	x	<input checked="" type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	x	<input type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____	<input type="checkbox"/>	<input type="checkbox"/> PSAV	<input type="checkbox"/> Apprenticeship
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)			

*Section 3 (If applicable)*  
INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

*Section 4*  
INTELLECTUAL COMPETENCIES:

x Reading	X Speaking	X Critical Analysis	<input type="checkbox"/> Quantitative Skills	X Scientific Method of Inquiry
x Writing	x Listening	x Information Literacy	<input type="checkbox"/> Ethical Judgment	<input type="checkbox"/> Working Collaboratively

<i>Section 5</i>	
LEARNING OUTCOMES	METHOD OF ASSESSMENT
• Demonstration of the fundamentals of disease process in relationship to the human body.	Written tests, practical exams and clinical performance, written reports
• Demonstrate a basic knowledge of pharmaceutical chemistry as it relates to the human physiology	Written tests, practical exams and clinical performance, written reports
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*Section 6*  
Name of Person Completing This Form: Eudelia S. Thomas Date: 11/07/2007