



Department of Physician Assistant Education

Master of Science in Medicine

2 units

MSM 6108 FUNDAMENTALS OF ENDOCRINOLOGY

SUMMER 2024

Office location: 204 Office hours: TBA		Instructor title and name: Guest lecturer:	
Final Exam and OSCEs:		Phone:	
Meeting location: Balboa Campus, Classroom 154, Clinical Skills Lab 223		Email:	
Week 1 Meeting days and times:	Week 2 Meeting days and times:	Week 3 Meeting days and times:	

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

COURSE DESCRIPTION

This course covers the epidemiology, etiology, risk factors, pathogenesis, pathophysiology, complications, and differential diagnoses of commonly encountered endocrine system diseases and disorders through symptoms-based and systems-based approaches. Management of patients with these diseases and disorders across the life span from initial presentation through follow-up for acute, chronic, and emergent cases will be covered, as will referral when necessary, preventive medicine, and patient education.

COURSE GOALS

This goal of this course is to provide the appropriate basic science background essential to the understanding of and diagnosis of disease patterns related to the endocrine system and to provide the student with the skills and knowledge necessary for the diagnosis and management of common endocrine disorders.

PROGRAM LEARNING OUTCOMES

The content in this course will contribute to the student's proficiency in this/these area(s):

1. Gather a history and perform a physical examination. (MK, IC, PC, PR)
2. Prioritize a differential diagnosis following a clinical encounter. (MK, PC, PB, PR, SB)
3. Recommend and interpret common diagnostic and screening tests. (MK, IC, PC, PR, PB, SB)
4. Enter and discuss orders and prescriptions. (MK, IC, PC, PR, PB, SB)
5. Document a clinical encounter in the patient record. (MK, IC, PC, PR)
6. Provide an oral presentation of a clinical encounter. (MK, IC, PC, PB, PR)
7. Form clinical questions and retrieve evidence to advance patient care. (MK, PC, PR, PB, SB)
8. Give or receive a patient handover to transition care responsibility. (MK, PC, PR, IC, PB)
9. Collaborate as a member of an inter-professional team. MK, IC, PC, PR, PB, SB
10. Recognize a patient requiring urgent or emergent care and initiate evaluation and management. (MK, IC, PC, PR, PB, SB)
11. Obtain informed consent for tests and/or procedures. MK, IC, PC, PR, PB
12. Perform general procedures of a physician assistant. MK, IC, PC, PR, PB, SB

Initials indicate PA core competency required to meet the PLO.

PA Core Competencies:

MK = Medical Knowledge
PR = Professionalism

IC = Interpersonal Skills & Communication
PB = Practice-based Learning

PC = Patient Care
SB = Systems-based Practice

COURSE LEARNING OUTCOMES

Successful completion of this course requires demonstration of the skills and knowledge outlined here at, minimally, the ADVANCED BEGINNER level.

1. Obtain a history and perform a focused physical examination relevant to endocrine symptoms. (PC2; MK1; IC1; IC7; PR1; PR3; PR5)
2. Prioritize a differential diagnosis based on the history and physical findings in a patient with an endocrine complaint. (PC2, PC4, MK2, MK3, MK4, PB1, IC2, PR8)
3. Recommend common diagnostic and screening tests, pharmacotherapeutics, and management based on their applicability to the differential diagnosis. (PC4, PC5, PC7, PC9, MK1, MK4, PB9, SB3)
4. Document a clinical encounter including history, physical examination, lab and/or imaging results and a differential diagnoses in the patient record. ((PC4, PC6, IC1, IC2, IC5, PR4, SB1)

5. Provide an oral presentation of a clinical encounter for an endocrine complaint including discussion of the pathology, laboratory and/or imaging results and justification of the proposed management plan. (PC2; PC6; IC1; IC2; PB1; PR1; PR3)
6. Form clinical questions and retrieve evidence to advance patient care. (PC5, PC7, MK3, MK4, PB1, PB3, PB6, PB7, PB8, PB9)
7. Recognize a patient requiring urgent or emergent care for an endocrine condition or the patient in whom the manifestation of systemic disease is endocrine and initiate evaluation and management. (PC1, PC2, PC3, PC4, PC5, PC6, IC6, PR1, PR5)

INSTRUCTIONAL OBJECTIVES

Upon completion of the **ANATOMY AND PHYSIOLOGY** section of the course, the student will be able to:

1. Summarize the site of production, regulation, and effects of the hormones of the endocrine system. Comprehension, B2.02a, B2.02b
2. Discuss the chemical composition of hormones and their mechanism of action. Comprehension, B2.02b
3. Explain the role of the pancreatic endocrine cells in the regulation of blood glucose. Comprehension, B2.02b
4. Compare and contrast nervous and endocrine system chemical communication. Analysis, B2.02b
5. Categorize hormones based on their composition and target cell action. Analysis, B2.02a, B2.02b
6. Compare and contrast steroid and nonsteroid hormone action. Analysis, B2.02b
7. Diagram the three mechanisms controlling hormone secretion, including negative feedback. Analysis, B2.02a, B2.02b
8. Contrast the effects of glucagon and insulin secretion. Evaluation, B2.02b

Upon completion of the **PATHOPHYSIOLOGY** section of the course, the student will be able to:

1. Predict the medical complications related to diabetes mellitus and explain the mechanism by which they occur. Analysis, B2.02c
2. Explain the pathophysiology and management of [Type 1 Diabetes](#). Comprehension, B2.02c
3. Explain the pathophysiology and management of [Type 2 Diabetes](#). Comprehension, B2.02c
4. Explain the physiology of normal and abnormal thyroid function. Comprehension, B2.02c
5. Describe the evaluation and management of diseases of the anterior and posterior pituitary. Comprehension, B2.02c
6. Compare the causes to the consequences of a) oversecretion and b) undersecretion of thyroid hormones. Explain what conditions can cause an enlargement of the thyroid gland. Analysis, B2.02c
7. Predict the consequences of [vitamin D deficiency](#) and vitamin D excess. Analysis, B2.02c
8. Compare the causes to the consequences of a) oversecretion and b) undersecretion of mineralocorticoids. Analysis, B2.02c
9. Predict the impact of stress on the interactions of adrenal medullary and cortical hormones. Analysis, B2.02c
10. Relate disease states to an oversecretion of adrenal catecholamines. Analysis, B2.02c

11. Relate disease states to: a) oversecretion, b) undersecretion of insulin, or c) decreased sensitivity to insulin, and describe the principal symptoms of each. ^{Analysis, B2.02c}
12. Relate the impact of acinar cell injury and impairment of the secretion of zymogen granules to pancreatic health. ^{Analysis, B2.02c}
13. Classify various causes of insulin resistance and the factors leading to insulin resistance in Type 2 DM. Distinguish it from metabolic syndrome. ^{Analysis, B2.02c}

Upon completion of the **PHYSICAL DIAGNOSIS** section of the course, the student will be able to:

1. Demonstrate a focused medical history in the evaluation of a suspected endocrine disease and/or disorder. ^{Application B2.07a}
2. Perform a complete, but focused physical examination on a patient with suspected endocrine disease and/or disorder with all special examinations relevant to this system. ^{Application, B2.07b}
3. Differentiate between normal and abnormal findings in the examination and identify the most likely etiologies. ^{Analysis, B2.07c}

Upon completion of the **CLINICAL MEDICINE** section of the course, the student will: ^{B2.03}

1. Given a patient across all age groups, with any of the following signs or symptoms: interview and elicit a comprehensive, relevant medical history, ^{B2.07a} perform a complete and focused physical examination and identify the physical findings, ^{B2.07b} generate a complete list of differential diagnoses prioritizing them appropriately, ^{B2.07c} recommend an appropriate work-up, order and interpret diagnostic studies, ^{B2.07d} propose patient management including acute and chronic care plans, ^{B2.07e} provide patient education and referral. ^{B2.07f, Evaluation}
 - a. Amenorrhea
 - b. Breast Discharge
 - c. Gynecomastia
 - d. Hirsutism with and without virilization
 - e. [Hypercalcemia](#)
 - f. [Hypocalcemia](#)
 - g. Hypercholesterolemia
 - h. Hyperglycemia
 - i. [Hypoglycemia](#)
 - j. Hyperphosphatemia
 - k. Hypophosphatemia
 - l. Hyperthyroidism
 - m. Hypothyroidism
 - n. [Hypertriglyceridemia](#)
 - o. Osteoporosis
 - p. Hyperparathyroidism
 - q. Hypoparathyroidism
2. Given a patient across all age groups, with any of the following signs or symptoms suggestive of the following disorders: interview and elicit a comprehensive, relevant medical history, ^{B2.07a}

perform a complete and focused physical examination and identify the physical findings, ^{B2.07b}
generate a complete list of differential diagnoses prioritizing them appropriately, ^{B2.07c}
recommend an appropriate work-up, order and interpret diagnostic studies, ^{B2.07d} propose
patient management including acute and chronic care plans, ^{B2.07e} provide patient education and
referral. ^{B2.07f, Evaluation}

- a. Weight loss
 - i. Neoplastic disease
 - 1. Multiple endocrine neoplasia
 - 2. Neoplastic syndrome
 - 3. Primary endocrine malignancy
 - ii. [Hyperthyroidism](#)
 - iii. Pheochromocytoma
 - iv. [Graves Disease](#)
 - v. Hypoglycemia
 - vi. [Corticoadrenal insufficiency](#)
- b. Weight Gain
 - i. [Polycystic Ovarian Syndrome](#)
 - ii. Hypothyroidism
 - iii. Cushing syndrome
 - iv. Hypogonadism
 - v. Growth Hormone Deficiency
 - vi. Hypothalamic obesity
- c. Palpitations
 - i. Hyperthyroidism
 - ii. Hypoglycemia
- d. Tachycardia
 - i. Hyperthyroidism
 - ii. Hypoglycemia
- e. Sweating/diaphoresis
 - i. Hyperthyroidism
 - ii. Hypoglycemia
- f. Hoarseness and dysphagia
 - i. [Hashimoto's Thyroiditis](#)
- g. Headache
 - i. [Pituitary adenoma](#)
- h. Heat Intolerance
 - i. Hyperthyroidism
- i. Cold Intolerance
 - i. Hypothyroidism
 - ii. [Postpartum thyroiditis](#)
- j. Diarrhea/ bowel movements
 - i. Hyperthyroidism
- k. Tremor/nervousness
 - i. Hyperthyroidism
 - ii. Hypoglycemia
 - iii.

- l. Proptosis
 - i. Hyperthyroidism
 - m. Myxedema
 - i. Hyperthyroidism (pretibial)
 - n. Short stature
 - i. Dwarfism
 - o. [Growth hormone excess](#)
 - i. Gigantism/acromegaly
 - p. Confusion/lethargy/amnesia/seizures
 - i. Hypoglycemia
 - q. Confusion/altered personality/lethargy/seizures
 - i. Syndrome of inappropriate antidiuretic hormone secretion (SIADH)
 - r. Polyphagia/polydipsia/polyuria
 - i. Hyperglycemia
 - s. Copious dilute urine
 - i. Diabetes insipidus
 - t. Weakness
 - i. Hyperglycemia
3. Provide appropriate patient education to the Type II diabetic with regard to diet, exercise, medication, symptoms of hypoglycemia and appropriate acute response to the patient and family. Synthesis, B2.12a, B2.04
 4. Choose a pharmacotherapeutic intervention relating the indications, contraindications, complications, efficacy and effectiveness of the treatment. Evaluate, B2.02d
 5. Justify the ordering of diagnostic tests used in the evaluation of endocrine disease identifying the relevance to diagnosis, risk/benefit and cost. Analysis, B2.07d
 6. Discuss common endocrine disorders presenting in children and in the elderly, their varying presentations and propose a management plan including consideration of co-morbidities and polypharmacy. Application, B2.02d, B2.07e, B2.08a
 7. Working with the appropriate health care professional, develop an appropriate patient education plan as needed. Application, B2.07f
 8. Working with the appropriate health care professional, recommend an appropriate patient referral plan as needed. Application, B2.07f
 9. Working with the appropriate health care professional recommend a suitable rehabilitation plan as needed. Application, B2.08b
 10. Working with the appropriate health care professional recommend a suitable prevention program as needed. Application, B2.08b
 11. Working with the appropriate health care professional, recommend an appropriate palliative care plan for a patient facing end-of-life decisions. Application, B2.08e
 12. Differentiate the evaluation and treatment approach in acute, chronic and emergent endocrine diseases and disorders. Analysis, B2.07e, B2.08b

13. Identify the patient requiring emergent intervention for an acute endocrine disorder. ^{Evaluation, B2.08b}
14. Demonstrate skills in problem solving and medical decision-making through community learning group case discussions and activities. ^{Application, B2.05}
15. Demonstrate supportive counseling skills when delivering bad news to a patient. ^{Application, B2.12c}

SKILLS OBJECTIVES

Upon completion of this course, the student will demonstrate proficiency in:

1. Eliciting a history. ^{Application, B2.07a}
2. Performing complete and focused physical exam of the endocrine system. ^{Application, B2.07b}
3. Performing a finger stick blood glucose determination, and explaining the indications and contraindications of the procedure. ^{Application, B2.09}

Note: Superscripts identify the Bloom's Taxonomy level for each objective.

UNIT INSTRUCTION

UNIT	HOURS	LECTURES	LABS
Unit I	3	ORIENTATION ANATOMY AND PHYSIOLOGY PATHOPHYSIOLOGY	
	2	PHYSICAL DIAGNOSIS	Patient History Physical Exam
Unit II	25	CLINICAL MEDICINE	Patient History Physical Exam Blood Glucose
FINAL EXAM			

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Note: Texts prefaced with double asterisks are provided in Access Medicine.

****Pathophysiology of Disease: An Introduction to Clinical Medicine 8E**
 By Gary D. Hammer, Stephen J. McPhee
 McGraw-Hill/Lange
 ISBN: 978-1260026504

Bates' Guide to Physical Examination and History Taking, 13th Edition by Lynn S. Bickley. LLW, (2022)

ISBN-13: 978-1496398178

ISBN-10: 1496398173

**DeGowin's Diagnostic Examination, 11e Richard F. LeBlond, Donald D. Brown, Manish Suneja, Joseph F. Szot. McGraw-Hill Education / Medical; 11th edition (2020).

ISBN-10: 0071814477

ISBN-13: 978-1260134872

**Harrison's Principles of Internal Medicine 20/E (Vol.1 & Vol.2) 20th Edition by Dennis L. Kasper, Anthony S. Fauci, Stephen Hauser, Dan Longo, J. Larry Jameson, Joseph Loscalzo

ISBN-13: 978-1259644030

ISBN-10: 0071802150

**Current Medical Diagnosis and Treatment, 60e (2021)

Author: Maxine A. Papadakis, Stephen J. McPhee, Eds. & Michael Rabow, Assoc Ed

Publisher: McGraw-Hill

ISBN: 978-1260469868

**Symptom to Diagnosis: An Evidence-Based Guide, 4e.

Scott D. C. Stern, Adam S. Cifu, Diane Altkorn

McGraw-Hill/Lange

ISBN-13: 978-1-260-12111-7

**Tintinalli's Emergency Medicine: A Comprehensive Study Guide, Ninth Edition (Emergency Medicine (Tintinalli)) 9th Edition

by Judith Tintinalli (Author), J. Stapczynski (Author), O. John Ma (Author), David Cline (Author), Rita Cydulka (Author), Garth Meckler (Author)

ISBN-13: 978-1260019933

ISBN-10: 0071484809

Essential Clinical Procedures: 4th Edition by Richard Dehn & David P. Asprey.

(2021) Elsevier Health Sciences

(ISBN-13: 978-0323624671

ISBN-10: 1455707813

Recommended: (not available in Access Medicine)

Cecil Essentials of Medicine: Edition 10

Edward J Wing, Fred J. Schiffman

Elsevier Health Sciences, (2022)

ISBN-13: 978-0323722711

ISBN-10: 143771899X

Textbook of Physical Diagnosis: History and Examination With STUDENT CONSULT Online Access, 8e (Textbook of Physical Diagnosis (Swartz)) 8th Edition by Mark H. Swartz MD FACP (Author). Saunders; 8th edition, (2021)
ISBN-13: 978-0323672924
ISBN-10: 0323221483

Date	Topic/Instructor	Reading/Assignment
Tuesday July 16 th 1-4pm Nassar	Anatomy and Physiology Hypothyroidism	
Wednesday July 17 th 1-4pm	Hyperthyroidism Thyroid Nodules	
Thursday July 18 th 1-5pm	Skills Assessment	
Monday July 22 nd 9am-12pm 1-4pm	Compare the causes to the consequences of a) oversecretion and b) undersecretion of mineralocorticoids Predict the impact of stress on the interactions of adrenal medullary and cortical hormones. Relate disease states to an oversecretion of adrenal catecholamines.	
Tuesday July 23 rd 1-5pm Ray Carlson, PA-C	Endocrinology Lab	
Wednesday July 24 th 1-5pm	Pituitary, Vitamin D, Insulin Resistance, Amenorrhea, Breast Discharge, Gynecomastia, Hirsutism with and without virilization, Hypercalcemia,	

	Hypocalcemia, Hyperglycemia, Hypoglycemia, Hyperphosphatemia, Hypophosphatemia	
Thursday July 25 th 1-4pm	Weight loss - Neoplastic disease, Multiple endocrine neoplasia, Neoplastic syndrome, Primary endocrine malignancy, Hyperthyroidism, Pheochromocytoma, Graves Disease, Corticoadrenal insufficiency. Weight gain - Polycystic Ovarian Syndrome, Cushing syndrome, Hypogonadism, Growth Hormone Deficiency, Hypothalamic obesity.	
Monday July 29 th 9am-12pm 1-4pm	Palpitations, Tachycardia, Sweating/diaphoresis, Hoarseness and dysphagia, Hashimoto's Thyroiditis, Headache, Pituitary adenoma, Heat Intolerance, Cold Intolerance. Postpartum thyroiditis, Tremor/nervousness, Proptosis, Myxedema, Diarrhea/bowel movements Type I and Type II Diabetes Mellitus, Classification and Diagnosis, Recommended Medical Evaluation, Glycemic Targets, Diabetes Technology. Pharmacologic Approaches for Glucose Management. Cardiovascular Disease and Risk Management in Diabetes. Chronic Kidney Disease and Risk Management in Diabetes. Retinopathy, Neuropathy and Foot Care in Diabetes. Diabetes Care in the Hospital Glucose Determination	
Tuesday July 30 th 1-4pm	Hypercholesterolemia, Hypertriglyceridemia, Osteoporosis, Hyperparathyroidism, Hypoparathyroidism	
Wednesday July 31 st	Short stature - Dwarfism. Growth hormone excess - confusion/lethargy/amnesia/seizures,	

1-4pm	Hypoglycemia, Confusion/altered personality/lethargy/seizures, Syndrome of inappropriate antidiuretic hormone secretion (SIADH), Polyphagia/polydipsia/polyuria, Hyperglycemia, Copious dilute urine, Diabetes insipidus, Weakness, Hyperglycemia. Gigantism/acromegaly	
Thursday August 1 st 1-4pm	Review	
Friday August 2 nd 8am-5pm	Final Exam and OSCE	

LEARNING MODALITIES

Modalities include lectures, on-line pre-lecture activities, reading assignments, community learning activities, and clinical skills labs. The class schedule and assignments can be found in Canvas.

ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. However, we recognize that as adults you have other life responsibilities and challenges that may interfere. Ultimately you are responsible for your education and your ability to demonstrate mastery of the course and program objectives.

1. You MUST attend:
 - PE and clinical skills labs appropriately dressed and with all necessary equipment
 - examinations on the date and time for which they are schedule
 - community learning group
2. We expect
 - active participation in all class activities.
 - completion of all class preparatory assignments prior to commencement of class.
 - respect for the class, peers and faculty.
 - on-time arrival for all classes, laboratories, learning groups or any scheduled activities.

Routine tardiness demonstrates a lack of professionalism and will not be tolerated

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Failure to meet the deadline will result in a loss of 10% each day the assignment is not turned in to the requesting faculty member. Incompletes will only be assigned under extremely unusual circumstances. Students failing an examination or practicum must complete the designated remediation (See REMEDIATION below) within the assigned time.

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examinations (written and practical) **on their respective scheduled days**. No requests for early examinations or alternative days will be approved.

ASSESSMENT AND GRADING

Student course grades are calculated using all assessment tools utilized during the course. These include quizzes, written examinations, written assignments, practicums, and evaluation of skills.

Learning community groups will be utilized to provide case-based instruction. A clinical case will be presented to each group by the group mentor. Students are expected to utilize knowledge acquired from prior readings and lectures, as well as self/group directed learning to work up the case, develop a working diagnosis, a differential diagnosis and a therapeutic regimen which will include a follow-up plan and patient education. Effective interpersonal communication, clinical reasoning and problem solving abilities, professional behavior and teamwork are paramount to success and development as clinicians. Cases will be issued no more frequently than every other week. There will be 2 cases in this module. Students will receive a collective grade for this exercise.

Learning community group performance expectations include; demonstrating effective interpersonal communication, clinical reasoning and problem solving abilities, professional behavior and teamwork skills. Application, B2.05, B4.03b, B4.03c, B4.03e

ACTIVITY	% OF GRADE
Learning Community	5%
Case Study H&P	5%
Written Examinations	50%
Skills OSCE	15%
Patient-centered OSCE	25%

Grading will be in keeping with Point Loma Nazarene University policy for graduate programs and grading will be as follows:

A=93-100	C=73-76
A-=92-90	C-=70-72
B+=87-89	D+=67-69
B=83-86	D=63-66
B-=80-82	D-=60-62

C+=77-79	F=0-59
----------	--------

REMEDIATION

Remediation is the process by which both the student and the program are assured that performance indicating a deficiency in knowledge or skills is subsequently demonstrated to be satisfactory. This may include a re-test over missed material, a skills demonstration or a review of missed material with completion of corrected answers. It is important to note that this is content remediation, not grade remediation and no grade will be changed based on these activities.

Within 48 hours of the posting of a grade of <70%, the student **MUST** contact the course director to discuss the student's performance and create a remediation plan. Unless otherwise directed by the course director, remediation activities must be completed within 5 days.

PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See the [Academic Honesty Policy](#) in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

PLNU ACADEMIC ACCOMMODATIONS POLICY

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are

requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

This syllabus is subject to change. Students are encouraged to check course messages and emails in order to remain current.

ARC-PA standards (5th edition) addressed in this course: B2.02(a)(b)(c)(d), B2.03, B2.04, B2.05, B2.07(a-f), B2.08(a)(b)(e), B2.09, B2.12(a)(c), B4.03b, B4.03c, B4.03e