

GUIDED PRACTICE

Class: NURS 23 Pathophysiology

Date assigned:

Date due:

Time estimate to complete this assignment: Preparatory time 1-2 hours of independent study.

Overview/Introduction

The endocrine system plays a key role in maintaining homeostasis within the body. This module is an overview of how the endocrine system works and what happens when normal physiological processes are disrupted or malfunction. Endocrine disorders result in hormonal imbalances that affect all body systems and may be acute or chronic in nature. Complications of endocrine disorders can be life threatening or debilitating when not detected in the early stages of disease progression. Nurses must know how to monitor for signs and symptoms of hormonal imbalances and endocrine disorders in all their patients.

Learning Objectives

Basic objectives

List the major endocrine glands and the hormones they produce.

Describe the 3 mechanisms that regulate hormone levels in the body.

Identify the endocrine disorders associated with the anterior pituitary gland, posterior pituitary gland, thyroid gland, parathyroid gland, adrenal gland, and pancreas.

Describe the etiology, signs and symptoms, characteristics and complications associated with each hormonal imbalance

Advanced objectives

Draw a negative feedback loop that describes the way a specific hormone is regulated and how to differentiate between a primary and secondary endocrine disorder.

Create a concept map of an endocrine disorder that includes the etiology, signs and symptoms, characteristics, manifestations, potential complications, priorities of care, and treatment options associated with this hormonal imbalance.

Preparatory Activities and Resources:

1. Read Gould chapter 16- Endocrine System Disorders
2. Review lesson learning objectives for this module on Canvas
3. View suggested videos to enhance your learning:
 - a. Diabetes Mellitus (17:48) https://www.youtube.com/watch?v=XAnMhq_dX0k
 - b. Hypercalcemia (11:17) <https://www.youtube.com/watch?v=630hhyQ-jEO>

Exercises: Please complete by start of class.

1. Reading assignment- write notes on the key concepts presented in the reading that corresponds with the module learning objectives
2. Write down any terminology or concepts that are unclear to you that can be brought up during class to clarify and enhance your understanding.

Questions?

If you have any questions or concerns feel free to reach out to me during my office hours (posted in syllabus) and/or via email me at : april.wood@sjsu.edu

ADVANCED PRACTICE

Class: NURS 23 Pathophysiology

Date assigned:

Date due:

Time estimate to complete this assignment: Total class time is 140 minutes, lecture 30 minutes; flipped classroom activities 30 minutes and group work approximately 60 minutes

Learning Objectives

Advanced objectives

By the end of class complete the group worksheet that includes drawing diagrams of negative feedback loops that describes the way a specific hormone is regulated and how to differentiate between a primary and secondary endocrine disorder.

By the end of class groups will create a concept map of an endocrine disorder that includes the etiology, signs and symptoms, characteristics, manifestations, potential complications, priorities of care, and treatment options associated with this hormonal imbalance. Each group will present their concept map to the class.

Activities & deliverables- At the end of class (sometimes extensions are granted if time runs out)

- Turn in completed group worksheet
- Turn in completed group concept map
- Present group concept map in front of the class.
- Each student submits a multiple-choice question that might be selected for the next exam

Resources:

Textbook: Van Meter, K.C., & Hubert, R.J. (2018). Gould's pathophysiology for the health professions (6th ed.). St. Louis: Saunders. **ISBN: 9781455754113**

Cite resources used to create your concept map

Questions?

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Flipped IN-CLASS Lesson Plan Template- Workshopping it!

Topic or concept: Pathophysiology: Endocrine Disorders

Basic objectives for preparatory work:

At the conclusion of this class, students will be able to:

LO1: List the major endocrine glands and the hormones they produce.

LO2: Describe the 3 mechanisms that regulate hormone levels in the body.

LO3: Identify the endocrine disorders associated with the anterior pituitary gland, posterior pituitary gland, thyroid gland, parathyroid gland, adrenal gland, and pancreas.

LO4: Describe the etiology, signs and symptoms, characteristics and complications associated with each hormonal imbalance

Advanced objectives for classwork & after class work:

LO5: Draw a negative feedback loop that describes the way a specific hormone is regulated and how to differentiate between a primary and secondary endocrine disorder.

LO6: Create a concept map of an endocrine disorder that includes the etiology, signs and symptoms, characteristics, manifestations, potential complications, priorities of care, and treatment options associated with this hormonal imbalance.

	Time planned	Activity and rationale	Resources needed
Beginning of class period	10- 15 mins	Start with a few audience response questions using I Clickers to review the basic content of the reading assignment that covers LO1-4.	Instructor: computer and projector Students: Computers/cell phones with I Clicker app
Middle of period	20- 30 mins	Give a short lecture highlighting key concepts and describing a few exemplar endocrine disorders in greater detail utilizing clinical pictures and diagrams to highlight the pathophysiology of each exemplar. Encourage students to ask questions to clarify the new content and learning objectives.	Instructor: computer and projector using PowerPoint or whiteboard and markers Students: notetaking via pen and paper or computer

Middle of period	40- 50 mins	<p>Students work in groups of 3-4 completing a worksheet with critical thinking questions and then create a concept map of a specific endocrine disorder based on a picture or diagram that is given to each group.</p> <p>Each group presents their concept map (case scenario) to the class.</p> <p>Encourage group discussion about what they learned</p>	<p>Students are given handouts of the group worksheet and concept map template.</p> <p>Pen and paper, groups can also use whiteboards.</p> <p>May use textbook or internet resources to gather more information for their concept map</p>
End of period	10 mins	<p>Each student writes one multiple choice question about endocrine disorders and turns it in to Instructor.</p> <p>Instructor will select 2-3 of the students' questions to include on the next exam.</p>	Index cards

Flipped BEFORE CLASS Work Plan Template

Basic learning objectives	Activity and rationale	Instructions to students
<p>LO1: List the major endocrine glands and the hormones they produce.</p> <p>LO2: Describe the 3 mechanisms that regulate hormone levels in the body.</p> <p>LO3: Identify the endocrine disorders associated with the anterior pituitary gland, posterior pituitary gland, thyroid gland, parathyroid gland, adrenal gland, and pancreas.</p> <p>LO4: Describe the etiology, signs and symptoms, characteristics and complications associated with each hormonal imbalance</p>	<p>Students are expected to come to class with foundational knowledge of anatomy and physiology and medical terminology they have covered in prerequisite courses.</p> <p>The new content focuses on what happens when normal physiological processes are disrupted or malfunction.</p> <p>Students who do not review the content ahead may have trouble correctly answering the audience response questions, following the class lecture, and contributing to the group assignments.</p>	<p>Review the learning objectives listed in the course syllabus associated with the lesson on endocrine disorders.</p> <p>Take notes from assigned readings and videos prior to class.</p>

Flipped AFTER CLASS Work Plan Template

Advanced learning objective	Activity and rationale	Instructions to students
<p>LO5: Draw a negative feedback loop that describes the way a specific hormone is regulated and how to differentiate between a primary and secondary endocrine disorder.</p> <p>LO6: Create a concept map of an endocrine disorder that includes the etiology, signs and symptoms, characteristics, manifestations, potential complications, priorities of care, and treatment options associated with this hormonal imbalance.</p>	<p>Content creation: Student are given the opportunity to work together in answering questions about endocrine disorders and then complete the concept map and present it to their peers.</p> <p>Active learning in groups allows students to interact and engage with each other- development of communication skills, team dynamics, shared accountability.</p> <p>Teaching is the best way to learn.</p>	<p>Break up into groups to work on the Exemplar Endocrine Disorders Worksheet and Concept Map.</p> <p>Students may use their textbooks and internet sources to check the accuracy of their responses</p> <p>Submit worksheet and concept map for a group grade, all members of the group must be listed as active participants in the group work to receive credit for the assignment.</p>