ENF 305 INTRODUCTION TO PATHOPHYSIOLOGY

Semester Credits:	4
In-class Hours:	64
Laboratory & Clinical:	34
Level:	3

OVERVIEW

Pathophysiology is the study of pathology (disease), physical and chemical processes that take place in living organisms while performing its vital functions. Pathophysiology constitutes a unifying discipline to provide the scientific basis of medical and paramedical practice. The study of pathophysiology involves integrating previous knowledge of Anatomy, Physiology, Biochemistry, Cellular and Molecular Biology, Nutrition, Epidemiology that the student has, and using that to better understand the mechanisms of the disease and its manifestations to comprehend, understand, and provide solutions for the promotion, protection, and prevention of individual and collective health. The purpose of teaching pathophysiology is to help students to understand the altered functions and the various mechanisms that are triggered abnormally.

Pathophysiology is one of the cornerstones of medical practice. At present the new advances in knowledge and scientific research are focused on the molecular level, which builds a bridge between molecular biology and pathophysiology.

Areas of knowledge

Pathophysiology is closely related to the biological basis, morphophysiology, enzymatic processes of biochemistry, with different devices and systems and their interaction with the internal and external endocrine glands, with sensory triggers and motor functions of the nervous system, immunology, pharmacology, Etc.

OBJECTIVES

Cognitively understand and identify intrinsic and extrinsic metabolic processes involved in the onset of various pathologies. 1. Acquire a basic understanding about the mechanisms of the human body and its regulation to maintain homeostasis that allows the study of diseases as a manifestation of function disorders. 2. Acquisition of skills that are related to laboratory work and research work (formulating hypotheses, discussion of findings and reporting results). 3. The student will be able to use this knowledge for the acquisition of clinical reasoning that attains pathophysiological explanation and interpretation of selected clinical cases that trains them to face future clinical situations.

CONTENTS

UNIT I: INTRODUCTION				
Know the technical terms and Pathophysiological principles of the appearance of signs, symptoms, and components of the various syndromes affecting humans.				
KNOWLEDGE	SKILLS	VALUES	P	NP
Definition of Pathophysiology Objectives: Production mechanism of diseases. Production of signs and symptoms Complications of the signs and symptoms Common diseases	Instill in the student a cognitive ability, and reasoning in the study of Pathophysiological phenomena familiarizing them with the scientific method and stimulating their interest in the observation.	Responsibility Efficiency Honesty Commitment Social		

UNIT II: THE MAIN PATHOPHYSIOLOGY SIGNS AND SYMPTOMS				
KNOWLEDGE	SKILLS	VALUES	P	NP
Pathophysiology: Dyspnea, pain, fever, cyanosis, edema, jaundice, fatigue, weight loss.	Identify the major signs and symptoms to establish the mechanisms and production thereof.	Warmth Responsibility Efficiency Humanism		

UNIT III: PATHOPHYSIOLOGY OF THE RESPIRATORY SYSTEM				
KNOWLEDGE	SKILLS	VALUES	P	NP
Afferent and reference the reflection and causes of cough Causes and mechanisms: Expectoration Hemoptysis Chest pain	To analyze the main aspects of signs and triggers of respiratory symptoms.	Responsibility Humanism Efficiency		

Pneumothorax Pleural effusion Shortness of breath				

UNIT IV: PATHOPHYSIOLOGY OF THE DIGESTIVE SYSTEM				
KNOWLEDGE	SKILLS	VALUES	P	NP
Dysphagia, dyspepsia, nausea, vomiting, abdominal pain, diarrhea, constipation. Epigastralgia: peptic ulcer, pathogenesis Ileus: components Malabsorption: etiopathology bowel disease, gastrointestinal hemorrhage, peritonitis, pancreatitis, Liver Failure, Ascites, Jaundice	Set parameters and recognize the main signs and symptoms and the triggers of the digestive diseases.	Responsibility Efficiency Humanism		

UNIT V: PATHOPHYSIOLOGY GENITOURINARY PATHOPHYSIOLOGY				
KNOWLEDGE	SKILLS	VALUES	P	NP
Disorders of micturition Hematuria Nephritic Syndrome Nephritic Syndrome Urinary Track Infection Acute Renal Failure Abnormal Menstrual Cycle	Analysis of symptoms and characteristic and identify the main aspects of signs and triggers of genitourinary symptoms.	Honesty Responsibility Humanism Quality Warmth		

UNIT VI: CARDIOVASCULAR SYSTEM				
KNOWLEDGE	SKILLS	VALUES	P	NP
Pathophysiology of: Chest pain, syncope heart failure	Identify and differentiate the triggers and	Effectiveness Efficiency		

Pericarditis Carcinogenic Shock Hypertension Endocarditis Vascular insufficiency	mechanisms of production of symptomatology typical of the Cardiovascular System. Early detection and care in cardiac patients.	Responsibility Humanism		

UNIT VII: NEUROLOGICAL SYSTEM				
KNOWLEDGE	SKILLS	VALUES	P	NP
Pathophysiology of: Headache, migraine, epilepsy. Cerebrovascular event, Hydrocephalus, plegias. Loss of consciousness, meningitis, dizziness, vertigo, balance disorders, abnormal involuntary movements.	To analyze the main aspects of signs and symptom triggers of the Neurological System, as well as identifies the degree of neurological involvement for timely patient care.	Humanism Efficiency Responsibility Warmth		

UNIT VIII: ENDOCRINE PATHOPHYSIOLOGY				
	SKILLS	VALUES	P	NP
OBESITY HYPOGONADISM HIRSUTISM Acromegaly Dwarfism **Skin and Appendages** Skin, hair and nails	Recognize the major signs and symptoms and triggers in the production of relevant pathologies of the Endocrine System and appropriate medical care.	Responsibility Humanism Efficiency		

EVALUATION PROCESS

1. Assignments & Quizzes 30%
2. Exams 40%

3. Laboratory/Clinical 30%

BIBLIOGRAPHY

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