

## Human Body

<b>Block Learning Objectives</b>
Demonstrate knowledge of the gross anatomical structure and basic function of the musculoskeletal system (for the extremities, back, trunk, neck and head).
Demonstrate knowledge of the gross anatomical structure and basic function of the peripheral nervous system (including spinal nerves, the brachial plexus, lumbosacral plexus, cervical plexus, cranial nerves and autonomic plexuses).
Demonstrate knowledge of the gross anatomical structure and basic function of the blood and lymphatic vascular systems.
Demonstrate knowledge of the gross anatomical structure and basic function of the respiratory system.
Demonstrate knowledge of the gross anatomical structure and basic function of the digestive system.
Demonstrate knowledge of the gross anatomical structure and basic function of the female and male urogenital systems.
Demonstrate knowledge of the basic anatomical development of the extremities, back, body cavities and viscera, and head and neck.
Demonstrate knowledge of the musculoskeletal, cardiovascular, pulmonary, abdominal, and head and neck physical exams.

## Human Body

Correlated Institutional Objectives
<b>1-1. Medical Knowledge:</b> Students will demonstrate knowledge of the scientific principles that underlie the current understanding of normal human development, behavior, function, aging, and disease. They will apply these principles in the discussion of health maintenance and common disease processes and in the evaluation and management of patients.
<b>1-2. Medical Knowledge:</b> Students will be able to demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. This includes considering the individual patient's education, financial resources, and alternative or complementary medical practices as well as the effect of social needs and socioeconomic factors on patient care.
<b>1-3. Medical Knowledge:</b> Students will demonstrate knowledge of common problems and differences across age, gender, and other groups.
<b>1-7. Medical Knowledge:</b> Students will demonstrate through laboratory or other practical opportunities the application of scientific method, observation, and critical analysis of data.
<b>3-1. Interpersonal and Communications:</b> Students will communicate effectively, both orally and in writing with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities.
<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.
<b>5-2. Self-directed and Lifelong learning:</b> Students will demonstrate the ability to locate, critically analyze, and apply biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.

## Molecules to Medicine

<b>Block Learning Objectives</b>
Explain how the normal human cell is constructed and how it functions.
Describe the basic principles of DNA structure, synthesis and repair.
Describe RNA structure, major types of RNA and their function, synthesis of mRNA, and mechanisms of gene regulation.
Discuss amino acids, protein primary, secondary, tertiary, and quaternary structure, and principles of translation and translational control, and basic principles of enzyme function and kinetics.
Comprehend the basic principles of human inheritance, the molecular basis of inherited disease, and methods to search for human disease genes.
Comprehend the basic principles of imprinting, cytogenetics, preparing and interpreting a pedigree, genetic regulation of sex determination, and describe the major forms of inherited disease encountered clinically.
Describe and discuss the major structural compartments, organelles, and cytoskeletal components in the cell and their function.
Explain the basic principles of intracellular trafficking, and intracellular signaling.
Provide a basic understanding of membrane structure and function, and basic principles of cell physiology, including cell composition and volume regulation, membrane potential, gated channels, and action potentials.
Describe how the cells in the body form major types of functional tissue, including epithelium, connective tissue, and muscle. Describe normal histology of human tissues.

## Molecules to Medicine

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<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.
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## Blood and Lymph

<b>Block Learning Objectives</b>
Recognize and describe the different blood cell types, their structure and function, their production and turnover, and associated disease states.
Define anemia; list the major causes and describe their pathophysiology, epidemiology, genetics, typical clinical and laboratory findings, and a rational approach to treatment. Discuss the impact of a chronic disease such as sickle cell anemia on a patient and family.
Describe the process of hemostasis, including regulation by anticoagulant and fibrinolytic pathways; describe pathologic states involving inadequate hemostasis or thrombosis, describe typical clinical and laboratory findings with hemostatic disorders and a rational approach to treatment, including use of anticoagulation and thrombolytic therapies.
List and describe available blood products for transfusion, how they are collected, tested, and stored, how blood typing and crossmatching occurs, and indications for transfusion; explain how ABO and Rh mismatch between mother and fetus can lead to hemolytic disease of the newborn.
Describe major features of the innate and adaptive immune systems; describe the anatomy and physiology of the immune system, and recognize major histologic features of the thymus and peripheral lymphoid organs.
Describe normal B and T cell function, the structure and function of the 5 classes of antibodies, genetic mechanisms leading to antibody and T cell receptor formation, and the role of MHC in T cell function and transplantation.
Describe major defects of the innate and adaptive immune system leading to immunodeficiency, including characteristic clinical findings and types of infections, pathophysiology, and some of the known molecular defects.
Describe how vaccines work and discuss some of the barriers to vaccine use in Colorado; Explain the role of the immune system in tumor surveillance and a rationale and approach to development of tumor vaccines and other modulation of the immune system to treat cancer.
List and describe the major types of immunopathology (types 1-4), including their pathophysiology and some of the laboratory and clinical findings.
List and describe the major rheumatologic disorders, including their laboratory, radiologic, and clinical features, epidemiology, genetics, pathophysiology, and an approach to treatment; Describe major classes of pharmacologic immunomodulators, their mechanism of action, and use in the treatment of rheumatic or autoimmune disease and in the setting of transplantation.
List and describe the major neoplastic diseases involving the hematopoietic system, recognize their histologic, cytogenetic, molecular features and epidemiology, and describe their typical prognosis and clinical course. Discuss the impact of diagnosis of a hematologic malignancy on a patient and family and potential late effects of therapy.

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<b>1-3. Medical Knowledge:</b> Students will demonstrate knowledge of common problems and differences across age, gender, and other groups.
<b>1-5. Medical Knowledge:</b> Students will demonstrate an understanding of the scientific basis and appropriate interpretation of common diagnostic methods, such as diagnostic imaging and clinical pathology.
<b>1-7. Medical Knowledge:</b> Students will demonstrate through laboratory or other practical opportunities the application of scientific method, observation, and critical analysis of data.
<b>2-1. Patient Care:</b> Students will accurately perform and document complete and focused histories and physical examinations that are based on the pathophysiology of presenting complaints and that address relevant psychosocial and family issues.
<b>2-2. Patient Care:</b> Students will identify and prioritize patients' problems, formulate appropriate differential diagnoses, and develop appropriate plans for treatment and/or management in both the outpatient and inpatient settings.
<b>2-3. Patient Care:</b> Students will encounter patients with selected conditions and the students will accurately record the encounters.
<b>2-5. Patient Care:</b> Students will perform complete and focused case presentations that are accurate and well-organized; prepare and maintain complete, accurate, well-organized medical records.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.
<b>5-2. Self-directed and Lifelong learning:</b> Students will demonstrate the ability to locate, critically analyze, and apply biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.
<b>5-3. Self-directed and Lifelong learning:</b> Students will use evidence-based approaches to decide whether to accept new findings, therapies, and technologies for incorporation into medical practice.

## Disease and Defense

<b>Block Learning Objectives</b>
Demonstrate a basic understanding of pharmacologic, microbiologic, virologic, and pathologic principles.
Understand major categories of human disease (infection, inflammation, trauma, neoplasia) and describe their pathophysiology, pathology, and examples of diseases and their treatments in each category.
Demonstrate understanding of antibiotic, antifungal, anti-inflammatory, anti-neoplastic and dermatologic classes of pharmaceutical agents including their mechanisms of action, major indications, and major adverse effects.
Understand larger societal and practice issues regarding public health and the practice of medicine, as it relates to overuse of antibiotics, vaccination or failure to vaccinate and development of antimicrobial resistance.
Use basic principles learned in the first part of the course to apply to the study of the largest organ in the body, the skin. Students will have a comprehensive understanding of the skin and be able to: 1) describe normal skin anatomy and skin-associated structures; 2) list congenital, infectious, inflammatory, and neoplastic skin diseases; 3) describe the associated epidemiology and clinical patterns; 4) develop appropriate diagnostic plans and treatment for these conditions.

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<b>1-4. Medical Knowledge:</b> Students will demonstrate an understanding of basic strategies for promoting health and preventing disease and apply this understanding to patient care.
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<b>2-3. Patient Care:</b> Students will encounter patients with selected conditions and the students will accurately record the encounters.
<b>3-3. Interpersonal and Communications:</b> Students will demonstrate a commitment and skill in teaching to and learning from students, colleagues, and other members of the health professions and patients.
<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-4. Professionalism:</b> Students will recognize the limit of their own knowledge, skills, and behavior through self-reflection and seek to overcome those limits.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.

## Cardiovascular, Pulmonary, Renal

<b>Block Learning Objectives</b>
Describe the normal gross structure, histology, and physiology of the heart, lungs, kidney, and their vascular beds.
Compare and contrast the physiology of the systemic and pulmonary circulations.
Describe the molecular, biochemical and cellular mechanisms that enable the cardiovascular, pulmonary, and renal systems to maintain the body's homeostasis, especially blood pressure and electrolyte balance.
Describe the causes (genetic, developmental, microbiologic, autoimmune, metabolic, toxic, and traumatic) of cardiovascular, pulmonary, and renal dysfunction.
Describe the gross structure, histology, and pathophysiology of the cardiovascular, pulmonary, and renal systems seen in common diseases and conditions.
Describe the epidemiology of common cardiovascular, pulmonary, and renal maladies within a defined population, and the systematic approaches useful in reducing the incidence and prevalence of those maladies.
Demonstrate clinical reasoning skills.
Demonstrate the ability to retrieve, evaluate, manage, and utilize biomedical information.
Describe the importance of life-long learning to the practice of medicine.
Describe the use of the scientific method to determine the causation of disease and to compare and contrast the efficacy of traditional and non-traditional therapies.
Apply the principles of pharmacology, therapeutics, and therapeutic decision making to cardiovascular, pulmonary, and renal dysfunction.
Demonstrate your understanding of the use and limits of laboratory diagnostic methods in the diagnosis of cardiovascular, pulmonary, and renal disease.

## Cardiovascular, Pulmonary, Renal

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<p><b>2-2. Patient Care:</b> Students will identify and prioritize patients' problems, formulate appropriate differential diagnoses, and develop appropriate plans for treatment and/or management in both the outpatient and inpatient settings.</p>
<p><b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.</p>
<p><b>5-2. Self-directed and Lifelong learning:</b> Students will demonstrate the ability to locate, critically analyze, and apply biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.</p>
<p><b>5-3. Self-directed and Lifelong learning:</b> Students will use evidence-based approaches to decide whether to accept new findings, therapies, and technologies for incorporation into medical practice.</p>

## Foundations of Doctoring Phase I

<b>Block Learning Objectives</b>
Know and use the language of physical examination structures, techniques and findings.
Relate the physical examination to normal anatomy and physiology.
Relate the physical examination to abnormal anatomy and pathophysiology.
Know variations in physical exam techniques for use with children and the elderly.
Know and use the language of medical interviewing and communications techniques, focusing on the techniques of open-ended inquiry and an empathic, humanistic approach.
State the goals of the doctor-patient encounter: establishing rapport, data acquisition, educating and enlisting the patient.
Identify the key components of the patient database gathered in the encounter: patient identification, chief complaint, history of present illness, active medical problems, past medical history, medications, allergies, habits and hazards, social history, family history, review of systems, and physical exam findings.
Identify the key components of the history and physical write-up, SOAP note and oral presentation.
<p>Perform basic physical examination techniques on adults and children in the following areas:</p> <ul style="list-style-type: none"> <li>• General Assessment (Vital Signs)</li> <li>• Extremities and Back</li> <li>• Cardiovascular</li> <li>• Chest and Lungs</li> <li>• Abdomen</li> <li>• Head and Neck</li> <li>• Skin, Hair and Nails</li> <li>• Eyes</li> <li>• Neurologic and Mental Status</li> </ul>
<p>Perform sensitive/invasive physical examination techniques on adults in the following areas:</p> <ul style="list-style-type: none"> <li>• Gynecologic and Breast</li> <li>• Urologic and Prostate</li> </ul>
Recognize some abnormal physical exam findings.
Obtain an accurate medical history that covers all essential aspects of the patient database, including issues related to age, gender, and socioeconomic status.
Practice basic open-ended inquiry: Invite, Listen and Summarize (ILS).
Practice communicating empathy to your patients, identifying their ideas, values and feelings.
Practice alternating between a patient-centered (ILS) and doctor-centered interview process when appropriate.
Practice skills for enlisting patients in behavior modification.

## Foundations of Doctoring Phase I

<b>Correlated Institutional Objectives</b>
<b>1-2. Medical Knowledge:</b> Students will be able to demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. This includes considering the individual patient's education, financial resources, and alternative or complementary medical practices as well as the effect of social needs and socioeconomic factors on patient care.
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<b>2-2. Patient Care:</b> Students will identify and prioritize patients' problems, formulate appropriate differential diagnoses, and develop appropriate plans for treatment and/or management in both the outpatient and inpatient settings.
<b>2-5. Patient Care:</b> Students will perform complete and focused case presentations that are accurate and well-organized; prepare and maintain complete, accurate, well-organized medical records.
<b>2-6. Patient Care:</b> Students will inform patients and their families about health and illness in a way that is clear and appropriate to their needs, including counseling on prevention and psychosocial issues.
<b>2-7. Patient Care:</b> Students will demonstrate an understanding of and respect for cultural differences in communication with and management of patients. Students will demonstrate an understanding of prevention, acute, chronic, continuing, rehabilitative, and end-of-life care and apply these to patient care.
<b>3-1. Interpersonal and Communications:</b> Students will communicate effectively, both orally and in writing with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities.
<b>3-2. Interpersonal and Communications:</b> Students will skillfully discuss sensitive issues with patients and their families in an effective, compassionate, non-judgmental manner.
<b>3-3. Interpersonal and Communications:</b> Students will demonstrate a commitment and skill in teaching to and learning from students, colleagues, and other members of the health professions and patients.
<b>3-4. Interpersonal and Communications:</b> Students will demonstrate compassionate treatment of patients and respect for their privacy and dignity.
<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-3. Professionalism:</b> Students will demonstrate a balance of their own needs and values with their professional responsibilities towards patients.
<b>4-4. Professionalism:</b> Students will recognize the limit of their own knowledge, skills, and behavior through self-reflection and seek to overcome those limits.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.

Communicate with patients that present more challenging interview issues.
Communicate effectively, both orally and in writing, with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities.
Practice writing a full history and physical, SOAP notes and performing oral presentations.
Reason deductively in solving clinical problems.
Practice compassionate treatment of patients, and respect for their privacy and dignity.
Uphold and promote the ideals of medical professionalism in all interactions with patients, colleagues, staff and faculty.
Understand and respect the roles of other health care professionals and the need to collaborate with others in caring for individual patients and in promoting the health of defined populations.
Recognize and accept limitations in one's knowledge and clinical skills, and a commitment to continuously improve one's knowledge and ability.
Recognize the importance of cultural, ethnic, racial and religious diversity and its impact on society, health care delivery, and the workplace.

## Problem-based Learning Phase I

Objectives	
Objective	Discipline
Demonstrate professional behavior by acting responsibly, treating colleagues with respect, maintaining confidentiality, and demonstrating respect for the dignity of others.	Professional Development
Demonstrate critical thinking by critiquing resources and questioning others' explanations in an appropriate manner.	Skills in Critical Judgment Based on Evidence; Evidence-based Medicine
Demonstrate clinical reasoning skills by identifying medical issues and formulating and evaluating competing hypotheses for PBL cases.	Clinical Problem Solving
Demonstrate life-long learning skills by researching, analyzing and synthesizing patient data and applying this information to clinical situations for PBL cases.	Self-Directed Learning
Demonstrate self-directed learning skills by evaluating what information is known and unknown about a patient case to guide necessary learning in available resources in clinical medicine.	Self-Directed Learning
Demonstrate communication and collaboration skills for working in groups or teams, learning from and, in turn, teaching colleagues.	Communicating with professionals
Demonstrate the ability to discuss with colleagues in a professional manner differences in culture, race, language, sexual orientation, religion, age, and economic status as they pertain to patient care in PBL cases.	Multicultural Medicine
Demonstrate the ability to examine one's own personal biases in terms of differences to ones own culture, race, language, sexual orientation, religion, age, and economic status as they pertain to patients in PBL cases.	Student Self Awareness of Personal Biases

## Nervous System

<b>Block Learning Objectives</b>
Understand the functional anatomy of the nervous system.
Understand the components of the neurologic exam, and demonstrate proficiency in performing a neurologic exam.
Be able to identify the constellation of deficits that result from a lesion in the nervous system at the following loci: muscle, neuromuscular junction, spinal cord, brainstem, basal ganglia, cerebellum, cortex.
Understand the major pathologic conditions that afflict the nervous system. Know the basic principles of diagnosis and treatment for these disorders.
Recognize the relationship between the structure of the nervous system and behavior.
Understand the difference between behavioral neurology and psychiatry. Recognize the different methods employed by each in the evaluation of behavioral disorders.
Understand the dynamics of synaptic plasticity, and how changing structure leads to changes in behavior.
Understand the overlap and differences between physical, pharmacologic, and behavioral manipulation of the nervous system.

## Nervous System

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<b>1-4. Medical Knowledge:</b> Students will demonstrate an understanding of basic strategies for promoting health and preventing disease and apply this understanding to patient care.
<b>1-5. Medical Knowledge:</b> Students will demonstrate an understanding of the scientific basis and appropriate interpretation of common diagnostic methods, such as diagnostic imaging and clinical pathology.
<b>1-6. Medical Knowledge:</b> Students will demonstrate an understanding of their role in addressing the medical consequences of common societal problems, such as the prevention, diagnosis, appropriate reporting, and treatment of violence and abuse.
<b>1-7. Medical Knowledge:</b> Students will demonstrate through laboratory or other practical opportunities the application of scientific method, observation, and critical analysis of data.
<b>1-8. Medical Knowledge:</b> Students will demonstrate an understanding of medical-legal responsibilities and how they relate to the duty and ability to act within the legal parameters, including abiding by those duties to protect and respect patient confidentiality, as well as the exceptions to those duties.
<b>2-1. Patient Care:</b> Students will accurately perform and document complete and focused histories and physical examinations that are based on the pathophysiology of presenting complaints and that address relevant psychosocial and family issues.
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<b>2-3. Patient Care:</b> Students will encounter patients with selected conditions and the students will accurately record the encounters.
<b>2-4. Patient Care:</b> Students will perform selected diagnostic and therapeutic procedures.
<b>2-5. Patient Care:</b> Students will perform complete and focused case presentations that are accurate and well-organized; prepare and maintain complete, accurate, well-organized medical records.
<b>2-6. Patient Care:</b> Students will inform patients and their families about health and illness in a way that is clear and appropriate to their needs, including counseling on prevention and psychosocial issues.
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<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-2. Professionalism:</b> Students will demonstrate knowledge of the theories and principles that govern ethical decision making and how these apply to major ethical dilemmas in medicine.
<b>4-4. Professionalism:</b> Students will recognize the limit of their own knowledge, skills, and behavior through self-reflection and seek to overcome those limits.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.
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## Digestive, Endocrine, and Metabolism Systems

<b>Block Learning Objectives</b>
Describe the normal gross structure, histology and physiology of the digestive organs (salivary glands, esophagus, stomach, small bowel, colon, gall bladder, exocrine pancreas, and liver) and endocrine organs (endocrine pancreas, hypothalamus, pituitary, adrenal, thyroid and parathyroid glands).
Discuss the key biochemical regulatory steps in the metabolism of carbohydrates, fats and amino acids, and their role in maintaining the body's energy balance.
Discuss the normal nutritional requirements of the body and how energy imbalance can result in common diseases and clinical conditions such as obesity, diabetes, hyperlipidemia and osteoporosis.
Describe the causes (genetic, developmental, microbiologic, autoimmune, metabolic, toxic and traumatic) of digestive, metabolic and endocrine dysfunction.
Describe the altered structure (pathology) and function (pathophysiology) of digestive and endocrine organs as seen in common diseases and clinical conditions.
Describe the epidemiology of common maladies within a defined population, and the systematic approaches useful in reducing the incidence and prevalence of those maladies.
Demonstrate clinical reasoning skills.
Demonstrate the ability to retrieve, evaluate, manage and utilize biomedical information derived from electronic databases and other sources.
Demonstrate an understanding of the need to engage in life-long learning as a means of keeping up on scientific advances.
Describe the use of scientific method to determine the causation of disease and to compare and contrast the efficacy of traditional and non-traditional therapies.
Apply the principles of pharmacology, therapeutics and therapeutic decision-making to digestive, endocrine and metabolic dysfunction.
Discuss how the principles of genomics, proteomics and bioinformatics can be used to better understand health and dysfunction of the digestive, metabolic and endocrine systems.
Discuss the scientific principles and limitations of laboratory diagnostic methods in the diagnosis of digestive, metabolic and endocrine dysfunction.

## Digestive, Endocrine, and Metabolism Systems

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<b>1-5. Medical Knowledge:</b> Students will demonstrate an understanding of the scientific basis and appropriate interpretation of common diagnostic methods, such as diagnostic imaging and clinical pathology.
<b>1-6. Medical Knowledge:</b> Students will demonstrate an understanding of their role in addressing the medical consequences of common societal problems, such as the prevention, diagnosis, appropriate reporting, and treatment of violence and abuse.
<b>1-7. Medical Knowledge:</b> Students will demonstrate through laboratory or other practical opportunities the application of scientific method, observation, and critical analysis of data.
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<b>3-4. Interpersonal and Communications:</b> Students will demonstrate compassionate treatment of patients and respect for their privacy and dignity.
<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-2. Professionalism:</b> Students will demonstrate knowledge of the theories and principles that govern ethical decision making and how these apply to major ethical dilemmas in medicine.
<b>4-3. Professionalism:</b> Students will demonstrate a balance of their own needs and values with their professional responsibilities towards patients.
<b>4-4. Professionalism:</b> Students will recognize the limit of their own knowledge, skills, and behavior through self-reflection and seek to overcome those limits.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.
<b>5-2. Self-directed and Lifelong learning:</b> Students will demonstrate the ability to locate, critically analyze, and apply biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.
<b>5-3. Self-directed and Lifelong learning:</b> Students will use evidence-based approaches to decide whether to accept new findings, therapies, and technologies for incorporation into medical practice.

## Life Cycle Block

<b>Block Learning Objectives</b>
Describe the normal biology of the male and female reproductive systems and breast.
Describe the pathogenesis, pathology, pathophysiology, pharmacology, and clinical correlation of the important diseases of the male and female reproductive systems and breast.
Describe the normal biology and important diseases of pregnancy - as they affect the fetus, placenta, and mother.
Describe the important features of childhood development - from newborn to adolescent - normal and abnormal.
Describe the important features of aging - normal and disease.
Describe the features and issues relating to end of life.

## Life Cycle Block

<b>Correlated Institutional Objectives</b>
<b>1-1. Medical Knowledge:</b> Students will demonstrate knowledge of the scientific principles that underlie the current understanding of normal human development, behavior, function, aging, and disease. They will apply these principles in the discussion of health maintenance and common disease processes and in the evaluation and management of patients.
<b>1-2. Medical Knowledge:</b> Students will be able to demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. This includes considering the individual patient's education, financial resources, and alternative or complementary medical practices as well as the effect of social needs and socioeconomic factors on patient care.
<b>1-3. Medical Knowledge:</b> Students will demonstrate knowledge of common problems and differences across age, gender, and other groups.
<b>1-4. Medical Knowledge:</b> Students will demonstrate an understanding of basic strategies for promoting health and preventing disease and apply this understanding to patient care.
<b>1-5. Medical Knowledge:</b> Students will demonstrate an understanding of the scientific basis and appropriate interpretation of common diagnostic methods, such as diagnostic imaging and clinical pathology.
<b>1-6. Medical Knowledge:</b> Students will demonstrate an understanding of their role in addressing the medical consequences of common societal problems, such as the prevention, diagnosis, appropriate reporting, and treatment of violence and abuse.
<b>1-8. Medical Knowledge:</b> Students will demonstrate an understanding of medical-legal responsibilities and how they relate to the duty and ability to act within the legal parameters, including abiding by those duties to protect and respect patient confidentiality, as well as the exceptions to those duties.
<b>2-2. Patient Care:</b> Students will identify and prioritize patients' problems, formulate appropriate differential diagnoses, and develop appropriate plans for treatment and/or management in both the outpatient and inpatient settings.
<b>3-3. Interpersonal and Communications:</b> Students will demonstrate a commitment and skill in teaching to and learning from students, colleagues, and other members of the health professions and patients.
<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-2. Professionalism:</b> Students will demonstrate knowledge of the theories and principles that govern ethical decision making and how these apply to major ethical dilemmas in medicine.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.

## Infectious Disease Block

Block Learning Objectives
Name <b>common microbial pathogens</b> .
Name the <b>diseases</b> caused by common microbial pathogens.
Describe presenting <b>symptoms</b> of specific infectious diseases.
Describe <b>laboratory methods</b> used to diagnose specific infectious diseases.
Explain <b>therapeutic options</b> for specific infectious diseases.
Describe <b>vaccines</b> to prevent specific infectious diseases.
Describe <b>key virulence factors</b> for specific infectious diseases and explain how these virulence factors are important in the pathogenesis and symptoms of specific infectious diseases.
Describe features of the innate and acquired host response associated with protection from disease ( <b>protective immune responses</b> ).
Describe features of the host immune response associated with <b>immunopathogenesis</b> .
Appreciate <b>epidemiologic features</b> of specific infectious diseases: <ol style="list-style-type: none"><li>1. modes of <b>transmission</b> (aerosols, food-borne, parenteral, sexual, zoonotic, iatrogenic, etc...)</li><li>2. means of <b>blocking transmission</b> (handwashing, body fluid precautions, pasteurization, mosquito control, etc...)</li></ol>

## Infectious Disease Block

<b>Correlated Institutional Objectives</b>
<b>1-1. Medical Knowledge:</b> Students will demonstrate knowledge of the scientific principles that underlie the current understanding of normal human development, behavior, function, aging, and disease. They will apply these principles in the discussion of health maintenance and common disease processes and in the evaluation and management of patients.
<b>1-2. Medical Knowledge:</b> Students will be able to demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. This includes considering the individual patient's education, financial resources, and alternative or complementary medical practices as well as the effect of social needs and socioeconomic factors on patient care.
<b>1-3. Medical Knowledge:</b> Students will demonstrate knowledge of common problems and differences across age, gender, and other groups.
<b>1-4. Medical Knowledge:</b> Students will demonstrate an understanding of basic strategies for promoting health and preventing disease and apply this understanding to patient care.
<b>1-5. Medical Knowledge:</b> Students will demonstrate an understanding of the scientific basis and appropriate interpretation of common diagnostic methods, such as diagnostic imaging and clinical pathology.
<b>1-6. Medical Knowledge:</b> Students will demonstrate an understanding of their role in addressing the medical consequences of common societal problems, such as the prevention, diagnosis, appropriate reporting, and treatment of violence and abuse.
<b>1-7. Medical Knowledge:</b> Students will demonstrate through laboratory or other practical opportunities the application of scientific method, observation, and critical analysis of data.
<b>1-8. Medical Knowledge:</b> Students will demonstrate an understanding of medical-legal responsibilities and how they relate to the duty and ability to act within the legal parameters, including abiding by those duties to protect and respect patient confidentiality, as well as the exceptions to those duties.
<b>2-2. Patient Care:</b> Students will identify and prioritize patients' problems, formulate appropriate differential diagnoses, and develop appropriate plans for treatment and/or management in both the outpatient and inpatient settings.
<b>2-4. Patient Care:</b> Students will perform selected diagnostic and therapeutic procedures.
<b>2-5. Patient Care:</b> Students will perform complete and focused case presentations that are accurate and well-organized; prepare and maintain complete, accurate, well-organized medical records.
<b>3-1. Interpersonal and Communications:</b> Students will communicate effectively, both orally and in writing with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities.
<b>3-2. Interpersonal and Communications:</b> Students will skillfully discuss sensitive issues with patients and their families in an effective, compassionate, non-judgmental manner.
<b>3-4. Interpersonal and Communications:</b> Students will demonstrate compassionate treatment of patients and respect for their privacy and dignity.

<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.
<b>5-1. Self-directed and Lifelong learning:</b> Students will recognize the need to engage in self-directed and lifelong learning to stay abreast of scientific advances.
<b>5-2. Self-directed and Lifelong learning:</b> Students will demonstrate the ability to locate, critically analyze, and apply biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.
<b>5-3. Self-directed and Lifelong learning:</b> Students will use evidence-based approaches to decide whether to accept new findings, therapies, and technologies for incorporation into medical practice.

## Foundations of Doctoring Phase II

<b>Block Learning Objectives</b>
Know and use the language of physical examination structures, techniques and findings.
Relate the physical examination to normal anatomy and physiology.
Relate the physical examination to abnormal anatomy and pathophysiology.
Know variations in physical exam techniques for use with children and the elderly.
Know and use the language of medical interviewing and communications techniques, focusing on the techniques of open-ended inquiry and an empathic, humanistic approach.
State the goals of the doctor-patient encounter: establishing rapport, data acquisition, educating and enlisting the patient.
Identify the key components of the patient data base gathered in the encounter: patient identification, chief complaint, history of present illness, active medical problems, past medical history, medications, allergies, habits and hazards, social history, family history, review of systems, and physical exam findings.
Identify the key components of the history and physical write-up, SOAP note and oral presentation.
<p>Perform basic physical examination techniques on adults and children in the following areas:</p> <ul style="list-style-type: none"> <li>• General Assessment (Vital Signs)</li> <li>• Extremities and Back</li> <li>• Cardiovascular</li> <li>• Chest and Lungs</li> <li>• Abdomen</li> <li>• Head and Neck</li> <li>• Skin, Hair and Nails</li> <li>• Eyes</li> <li>• Neurologic and Mental Status</li> </ul>
<p>Perform sensitive/invasive physical examination techniques on adults in the following areas:</p> <ul style="list-style-type: none"> <li>• Gynecologic and Breast</li> <li>• Urologic and Prostate</li> </ul>
Recognize some abnormal physical exam findings.
Obtain an accurate medical history that covers all essential aspects of the patient data base, including issues related to age, gender, and socioeconomic status.
Practice basic open-ended inquiry: Invite, Listen and Summarize (ILS).
Practice communicating empathy to your patients, identifying their ideas, values and feelings.
Practice alternating between a patient-centered (ILS) and doctor-centered interview process when appropriate.
Practice skills for enlisting patients in behavior modification.

Communicate with patients that present more challenging interview issues.
Communicate effectively, both orally and in writing, with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities.
Practice writing a full history and physical, SOAP notes and performing oral presentations.
Reason deductively in solving clinical problems.
Practice compassionate treatment of patients, and respect for their privacy and dignity.
Uphold and promote the ideals of medical professionalism in all interactions with patients, colleagues, staff and faculty.
Understand and respect the roles of other health care professionals and the need to collaborate with others in caring for individual patients and in promoting the health of defined populations.
Recognize and accept limitations in one's knowledge and clinical skills, and a commitment to continuously improve one's knowledge and ability.
Recognize the importance of cultural, ethnic, racial and religious diversity and its impact on society, health care delivery, and the workplace.

## Foundations of Doctoring Phase II

<b>Correlated Institutional Objectives</b>
<b>1-2. Medical Knowledge:</b> Students will be able to demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. This includes considering the individual patient's education, financial resources, and alternative or complementary medical practices as well as the effect of social needs and socioeconomic factors on patient care.
<b>2-1. Patient Care:</b> Students will accurately perform and document complete and focused histories and physical examinations that are based on the pathophysiology of presenting complaints and that address relevant psychosocial and family issues.
<b>2-2. Patient Care:</b> Students will identify and prioritize patients' problems, formulate appropriate differential diagnoses, and develop appropriate plans for treatment and/or management in both the outpatient and inpatient settings.
<b>2-5. Patient Care:</b> Students will perform complete and focused case presentations that are accurate and well-organized; prepare and maintain complete, accurate, well-organized medical records.
<b>2-6. Patient Care:</b> Students will inform patients and their families about health and illness in a way that is clear and appropriate to their needs, including counseling on prevention and psychosocial issues.
<b>2-7. Patient Care:</b> Students will demonstrate an understanding of and respect for cultural differences in communication with and management of patients. Students will demonstrate an understanding of prevention, acute, chronic, continuing, rehabilitative, and end-of-life care and apply these to patient care.
<b>3-1. Interpersonal and Communications:</b> Students will communicate effectively, both orally and in writing with patients, patients' families, colleagues, and others with whom physicians must exchange information in carrying out their responsibilities.
<b>3-2. Interpersonal and Communications:</b> Students will skillfully discuss sensitive issues with patients and their families in an effective, compassionate, non-judgmental manner.
<b>3-3. Interpersonal and Communications:</b> Students will demonstrate a commitment and skill in teaching to and learning from students, colleagues, and other members of the health professions and patients.
<b>3-4. Interpersonal and Communications:</b> Students will demonstrate compassionate treatment of patients and respect for their privacy and dignity.
<b>4-1. Professionalism:</b> Students will act in an ethically responsible manner, displaying integrity, honesty, and appropriate boundaries with patients, patients' representatives, and fellow health care professionals.
<b>4-3. Professionalism:</b> Students will demonstrate a balance of their own needs and values with their professional responsibilities towards patients.
<b>4-4. Professionalism:</b> Students will recognize the limit of their own knowledge, skills, and behavior through self-reflection and seek to overcome those limits.
<b>4-5. Professionalism:</b> Students will recognize and appropriately address gender and cultural biases in themselves and others.

## Problem-based Learning Phase II

Objectives	
Objective	Discipline
Demonstrate professional behavior by acting responsibly, treating colleagues with respect, maintaining confidentiality, and demonstrating respect for the dignity of others.	Professional Development
Demonstrate critical thinking by critiquing resources and questioning others' explanations in an appropriate manner.	Skills in Critical Judgment Based on Evidence; Evidence-based Medicine
Demonstrate clinical reasoning skills by identifying medical issues and formulating and evaluating competing hypotheses for PBL cases.	Clinical Problem Solving
Demonstrate life-long learning skills by researching, analyzing and synthesizing patient data and applying this information to clinical situations for PBL cases.	Self-Directed Learning
Demonstrate self-directed learning skills by evaluating what information is known and unknown about a patient case to guide necessary learning in available resources in clinical medicine.	Self-Directed Learning
Demonstrate communication and collaboration skills for working in groups or teams, learning from and, in turn, teaching colleagues.	Communicating with professionals
Demonstrate the ability to discuss with colleagues in a professional manner differences in culture, race, language, sexual orientation, religion, age, and economic status as they pertain to patient care in PBL cases.	Multicultural Medicine
Demonstrate the ability to examine one's own personal biases in terms of differences to ones own culture, race, language, sexual orientation, religion, age, and economic status as they pertain to patients in PBL cases.	Student Self Awareness of Personal Biases