



TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER™  
EL PASO

Paul L. Foster School *of* Medicine

# **Syllabus**

## **Scientific Principles of Medicine (SPM)**

**PSPM 5021 (SPM I)**

**PSPM 5012 (SPM II)**

**Academic Year 2025-2026**

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## **Contact Information and Emergency Contacts**

### **SPM I/II Course Co-Director**

Jessica Chacon, PhD

Office: MEB 2200H

Tel.: 915-215-6116

[Jessica.Chacon@ttuhsc.edu](mailto:Jessica.Chacon@ttuhsc.edu)

### **SPM I/II Course Co-Director**

Waymon Holloway, PhD

Office: MEB 4143

Tel.: 915-215-5229

[Waymon.Holloway@ttuhsc.edu](mailto:Waymon.Holloway@ttuhsc.edu)

### **SPM I/II Course Coordinator**

Mr. Lopaka Ahia (interim)

Office: MEB 2200

Tel.: 915-215-6566

[lahia@ttuhsc.edu](mailto:lahia@ttuhsc.edu)

### **SPM I/II Assessment Coordinator**

Ms. Kendra Farr

Office: MEB 2200

Tel.: 915-215-4101

[kendrfar@ttuhsc.edu](mailto:kendrfar@ttuhsc.edu)

### **Course Room location(s)**

Medical Science Building II-MSB2 1A103A

Medical Science Building II-MSB2 1A105

Medical Education Building-MEB 4120 Basic Science Lab

Medical Education Building-MEB 4100 Basic Science Lab

Medical Education Building-MEB 4135 Gross Anatomy Lab

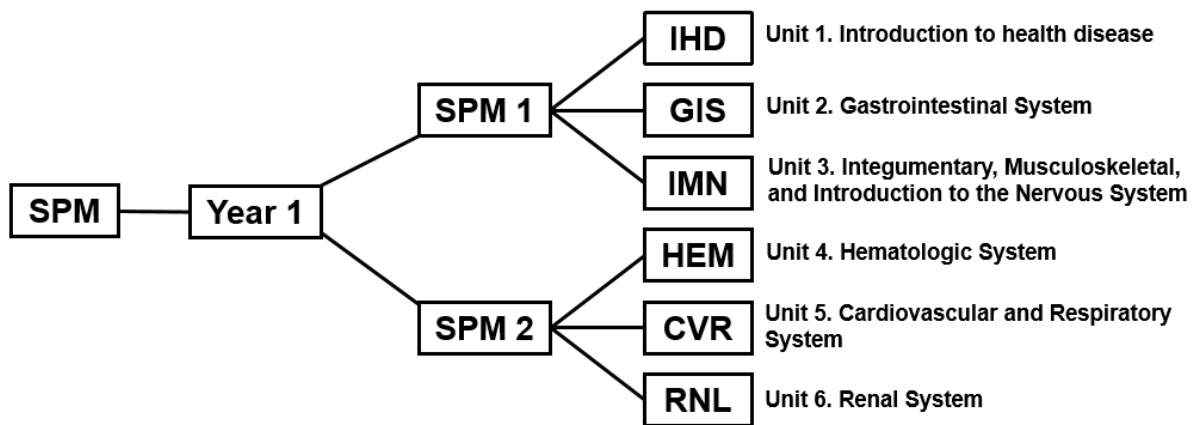
**Office hours** by appointment for SPM teaching faculty and course coordinators

## Course Description

The Scientific Principles of Medicine (SPM) course is designed to foster the rapid acquisition, integration and application of scientific knowledge fundamental to the practice of medicine. By using diagnostic scheme algorithms as conceptual frameworks for both learning and application, the knowledge structure and diagnostic skills of an experienced clinician will be developed from the very outset of instruction. Students will explore human health and disease within individual organ-based units that are each organized into a series of 'clinical presentations' (e.g. dysphagia, nausea and vomiting, abdominal distention, diarrhea and constipation, and abdominal pain and GI bleeding) that reflect the major ways in which a person would present to a physician. By learning the basic and clinical sciences asynchronously and synchronously and within the context of clinical presentations, a high level of integration and clinical relevance is achieved. The use of diagnostic scheme algorithms as conceptual frameworks for structuring and applying scientific knowledge is aimed at equipping students with the skills to make highly effective evidence-based diagnoses using scheme-inductive reasoning. This pedagogical approach, as implemented in SPM, has been shown to help mitigate the loss of basic science knowledge over time, help students think like experts when solving clinical problems, and dramatically improve students' diagnostic success rates.

Gross anatomy is featured by way of prosections, three-dimensional models, radiographs, computer assisted tomography, magnetic resonance imaging, angiograms, ultrasound images, and histological images. In activities such as the Worked Case Example (WCE) and Tankside Grand Rounds sessions, students will learn to communicate effectively and function as members of a team.

By its nature, the clinical presentation-based curriculum will make students aware of the larger context and system of healthcare as many of the case-based discussions incorporate consideration of risks and cost. Also, the SPM course incorporates experiences and activities, such as the Student Self-Assessment component (formative exams), that give students opportunities to assess their knowledge and identify their own strengths and deficiencies and then engage in self-directed learning to address knowledge gaps. A general overview of the organization of clinical presentation-based units in SPM is provided in the following schematic:



### SPM I (PSPM 5021):

This first-semester course of Year 1 consists of three integrated units: **‘Introduction to Health and Disease’** (IHD), **‘Gastrointestinal System’** (GIS), and **‘Integumentary, Musculoskeletal, and Introduction to the Nervous System’** (IMN). The sequence of clinical presentations within each unit has been structured so that the concepts developed during the study of one topic provide the foundation for subsequent topics. Each week’s clinical scheme presentation sets the stage for the basic science sessions and leads to the Worked Case Examples where the basic and clinical science information is applied. The scheme presentation also includes a process worksheet (PWS) which details the approach an experienced clinician would utilize to efficiently diagnose and treat the problem. Each clinical presentation includes a set of basic science learning objectives related to the appropriate scientific concepts of anatomy (gross and neuroanatomy, including medical imaging), behavioral science, biochemistry, cell and molecular biology, embryology, genetics, histology, immunology, microbiology, nutrition, pathology, pharmacology, and physiology. Each clinician who presents a clinical presentation also prepares a process worksheet that details how an experienced clinician would think about the problem and how they would manage the differential diagnostic possibilities. These process worksheets also detail appropriate therapy for the different diagnostic possibilities. Discipline experts provide instruction using various teaching methods including lectures, flipped-classroom methods, laboratories, team-based learning (TBL), online learning modules, peer teaching, and small-group discussions. Both basic science and clinical faculty participate in this component of the instructional process.

### Unit 1: Introduction to Health and Disease (IHD)

This 5-week unit is comprised of the following clinical presentations that introduce students to the basic foundations of health and disease:

Week	CP	Title
1	1	Periodic Health Exam and Preventative Healthcare
2	2	Well-child exam
3	3	Sore Throat
4	4	Fever
5	5	Wound
Exam Week		

The molecular and cellular mechanisms underlying homeostasis, cell growth and division, quiescence, senescence, and apoptosis will be introduced to provide a foundation for understanding the processes of health and disease. Biochemistry, cell biology, genetics, immunology, microbiology, and pathology are featured prominently in this unit. Highlights include the student's experiences in the anatomy and microbiology laboratories.

### Unit 2: Gastrointestinal System (GIS)

This 5-week unit investigates the gastrointestinal system within the context of the following clinical presentations:

Week	CP	Title
1	1	Dysphagia
2	2	Nausea and Vomiting
3	3	Abnormal Liver Function Tests and Jaundice
	4	Abdominal Distension
4	5	Diarrhea

	6	Constipation
5	7	Abdominal Pain
	8	Blood from Gastrointestinal Tract
Exam Week		

In this unit, students will be introduced to the processes of motility, secretion, digestion, and absorption, which form the functional basis of the gastrointestinal system. The numerous functions of the liver will be presented, including those that relate to intermediary metabolism, blood detoxification, plasma protein synthesis, and bile production, forming a foundation for recognizing, understanding, and treating various diseases of the liver and hepato-biliary system. Within each of the clinical presentations, the pathology and etiologies of region-specific diseases are explained as they relate to the underlying basic science. There are anatomy sessions that highlight the anatomical basis for each of the clinical scheme presentations.

### **Unit 3: Integumentary, Musculoskeletal and Introduction to the Nervous Systems (IMN)**

This 7-week unit is an integrated presentation of the major basic science concepts related to the integumentary (i.e., skin, hair, and nails), musculoskeletal, and nervous systems (with a deliberate focus on the peripheral nervous system). The course content is organized and explored through a sequence of common and broadly applicable clinical presentations that include orthopedic, rheumatologic, neurologic, and dermatologic issues:

Week	CP	Title
1	1	Skin Lesions: Rash—Non-Blistering
	2	Skin lesions: Rash with Blisters; Hair, Nails, and Ichthyosis
2	3	Skin Lesions: Tumors
3	4	Bone Fractures
4	5	Joint Pain
5	6	Musculoskeletal Lumps and Masses
	7	Deformity and Limp



Thanksgiving Week		
6	8	Pain
	9	Numbness and Tingling
7	10	Weakness and Loss of Motion
Exam Week		

The neuroscience of movement and pain, the regulation of skeletal muscle contraction at the cellular and molecular levels, and the scientific principles of peripheral nervous system diseases are some of the themes explored in this unit.

### **SPM II (PSPM 5012):**

This second-semester course of Year 1 consists of three units: '**Hematologic System**' (HEM), '**Cardiovascular and Respiratory Systems**' (CVR), and '**Renal System**' (RNL).

### **Unit 4: Hematologic System (HEM)**

This 4-week unit investigates the functions of the hematologic system within the context of the following clinical presentations:

Week	CP	Title
1	1	Coagulation Abnormalities
2	2	Abnormal Hemoglobin
3	3	Abnormal White Blood Cells
4	4	Lymphadenopathy
Exam Week		

Students will learn about the structure and function of the formed elements of blood, as well as the components of blood plasma, as they apply to health and hematologic diseases.

### **Unit 5: Cardiovascular and Respiratory Systems (CVR)**

This 7-week unit explores the normal parameters of the cardiovascular and respiratory systems and investigates their dysfunction in the following clinical presentations:

Week	CP	Title
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1	1	Abnormal Heart Sounds
	2	Cardiac Murmurs
2	3	Chest Discomfort
3	4	Syncope
	5	Palpitations
4	6	Abnormal Blood Pressure: Hypertension and Shock
5	7	Dyspnea
6	8	Cough and Wheezing
7	9	Cyanosis
	10	Hemoptysis
	11	Mediastinal Mass
Exam Week		

The faculty of the Department of Medical Education collaborate with cardiologists, pulmonologists, acute care physicians, and other practicing specialists to present the topics using a variety of educational approaches. Several laboratory experiences are included to emphasize critical physiological concepts underlying the function of the cardiovascular and respiratory systems.

#### **Unit 6: Renal System (RNL)**

This 4-week unit focuses on fluids, electrolytes, homeostatic mechanisms and the structure and function of the kidney. The following clinical presentations are covered in this unit:

Week	CP	Title
1	1	Abnormalities of Renal Function
2	2	Disorders of Serum Sodium
3	3	Abnormalities of Hydrogen Ion Concentration
4	4	Intrinsic Renal Disease
Exam Week		

## **Educational Methods and Learning Experiences**

SPM offers a robust learning experience by employing a variety of educational methods which are presented on site or virtually, depending on current circumstances, including:

- Lectures (e.g. clinical scheme presentations)
- Large group interactive discussions
- Small group interactive discussions (Open-Learning Forum, also known as Afternoon Club)
- Integrative Team-Based Learning (TBL) experiences
- Flipped classroom methods
- Peer-teaching
- Case-based learning
- Concept mapping
- Jigsaw method
- Independent learning
- Self-directed learning
- Laboratory exercises (e.g., Anatomy & Microbiology)
- Exposure to interprofessional education (e.g., Worked Case Example sessions, instruction from a wide variety of professionals)
- The Student Self-Assessment (SSA) component (e.g., session-level quizzes, weekly formative exams)

Learning experiences are framed around each clinical presentation and consist of three main components: (1) Introduction & Diagnostic Scheme Overview, (2) Basic Science, (3) Synthesis, Integration, and Worked Case Example sessions. The Introduction session is a clinician-guided overview of the clinical presentation and the underlying conceptual framework (diagnostic scheme) of scientific concepts utilized by expert clinicians to make effective diagnoses. The Basic Science sessions are designed to help students build an integrated foundation of clinically relevant scientific knowledge within the context of clinical presentations and their respective diagnostic schemes. The Worked Case Example session emphasizes the deliberate practice of making evidence-based clinical diagnoses using basic science knowledge and scheme-inductive diagnostic reasoning. WCE sessions promote a high level of student engagement in clinician-tutored small group or team-based learning formats.

## **Tankside Grand Rounds (TSGR)**

There is a capstone event at the end of the second year of medical school called Tankside Grand Rounds (TSGR). First-year medical students are invited and highly encouraged to attend TSGR.

TSGR is designed to integrate students' basic science knowledge with clinical presentation schemes and relevant findings from donor cadavers. In addition, this element assesses students' ability to employ self-directed learning strategies, work within a team, and communicate effectively with peers and other health care professionals.

Students within each TSGR team are required to both individually and collaboratively investigate their donor cadaver's listed cause of death, known comorbidities, and any other pertinent findings that were discovered during the examination of their donor. Following a self-organized team meeting and discussion, each student will engage in a self-directed learning activity that follows a unified sequence:

- 1) Identify learning objectives:
- 2) Develop SMART learning objectives:
- 3) Seek and evaluate information:
- 4) Prepare a brief presentation:
- 5) Collaborate and review:

## **Competencies, Program Goals and Objectives, and Outcome Measures**

The Paul L. Foster School of Medicine (PLFSOM) education program goals and objectives are outcome-based statements that guide instruction and assessment as students develop the knowledge and abilities expected of a physician. All elements of the PLFSOM curriculum are derived from, and contribute to, the fulfillment of one or more of the medical education program's goals and objectives, which can be found at [PLFSOM PGOs](#). The SPM course is designed to meet the following PLFSOM Medical Education Program Goals and Objectives:

### **SPM I (PSPM 5021) course level objectives:**

1. Demonstrate foundational knowledge of human anatomy, physiology, biochemistry, genetics, immunology, microbiology, and pathology, and apply it to the understanding of health and disease (KP-2.1, KP-2.2, PBL-3.1).
2. Explain the structural and functional relationships among body systems, including the integumentary, musculoskeletal, nervous, gastrointestinal, and immune systems, and how disruptions contribute to disease (KP-2.1, KP-2.2).
3. Interpret clinical signs, physical examination findings, and diagnostic data (e.g., laboratory tests, imaging, histopathology) in the context of common patient presentations across organ systems (PC-1.1, PC1.3, KP-2.3).
4. Describe the molecular, cellular, and tissue-level processes that maintain homeostasis, and correlate their dysfunction with clinical manifestations such as infection, inflammation, organ dysfunction, and tissue damage (KP-2.1, KP-2.2, KP-2.3).

5. Identify the pathophysiologic mechanisms and etiologies of common clinical conditions, including dermatologic, gastrointestinal, musculoskeletal, neurologic, and immune-mediated diseases (KP-2.1, KP-2.2, KP-2.3).
6. Apply principles of microbiology and immunology to explain host defense mechanisms and the pathogenesis of infectious and immune-mediated conditions (KP-2.1, KP-2.2).
7. Use basic science knowledge to construct and refine differential diagnoses for common clinical problems such as rash, abdominal pain, joint pain, neurologic symptoms, wound infections, and abnormal lab values (PC-1.3, KP-2.2).
8. Correlate gross and microscopic anatomy with clinical presentations, and interpret radiologic and histologic images in the context of disease (KP-2.1, KP-2.2).
9. Demonstrate early clinical reasoning skills by integrating basic science principles with patient data to formulate diagnostic hypotheses and identify relevant pathophysiologic processes (KP-2.2, KP-2.3).
10. Apply foundational pharmacologic principles—including mechanisms of action, pharmacokinetics, pharmacodynamics, and adverse effects—to explain therapeutic strategies for common clinical conditions, including dermatologic, gastrointestinal, musculoskeletal, neurologic, and immune-mediated diseases (PC-1.2).
11. Recognize the importance of preventive healthcare and health maintenance throughout life, including in pediatric and adult populations (PC-1.5).
12. Demonstrate foundational scientific inquiry skills in laboratory settings, including microbiology, anatomy, and pathology labs, and use these experiences to support clinical problem-solving (PC-1.1, PNL-3.1, PBL-3.4).
13. Demonstrate professionalism in interactions with peers, faculty, patients, and community members, showing cultural sensitivity and respect for diverse perspectives (PRO-5.1).
14. Uphold academic integrity in all coursework, assessments, and group assignments by adhering to institutional policies and ethical standards (PRO-5.6).
15. Consistently meet deadlines, attend required sessions, and fulfill responsibilities in collaborative learning and clinical experiences (PRO-5.7).
16. Demonstrate effective communication and teamwork skills during case-based discussions, small group sessions, and interprofessional learning activities (ICS-4.2).
17. Practice delivering clinical information and engaging in peer dialogue using compassionate, respectful, and patient-centered language in both verbal and written communication (ICS-4.3).
18. Discuss how social determinants of health, cultural beliefs, and health literacy influence disease risk, care-seeking behavior, treatment adherence, and health outcomes (KP-2.5).
19. Contribute to team-based learning by engaging in peer teaching and collaborative discussions, and develop educational materials to support group understanding of clinical and basic science concepts (PBL-3.6).

### **Unit 1: Introduction to Health and Disease (IHD) objectives**

1. Describe the principles of health maintenance and disease prevention (KP-2.4).
2. Explain the molecular and cellular mechanisms that maintain homeostasis (KP-2.1, KP-2.2).

3. Correlate genetic, biochemical, and cellular factors with normal and abnormal growth and development in children (KP-2.1, KP-2.2).
4. Describe the immune response to infectious agents (KP-2.1, KP-2.2).
5. Interpret clinical signs and laboratory findings associated with infection and inflammation (PC-1.1).
6. Connect microbial structure and pathogenicity to clinical disease (KP-2.1, KP-2.2).
7. Describe how tissue injury and repair relate to wound healing (KP-2.1, KP-2.2).
8. Demonstrate foundational skills in the microbiology laboratory (PC-1.1, KP-2.1, KP-2.2, PBL-3.1).
9. Integrate basic science concepts to explain the pathophysiology underlying common clinical presentations (KP-2.1, KP-2.2).
10. Develop habits of inquiry and clinical reasoning in the context of early patient presentations (KP-2.3).
11. Describe basic pharmacologic principles, including mechanisms of action, therapeutic uses, and adverse effects of medications used to treat common clinical conditions (PC-1.2).

## **Unit 2: Gastrointestinal System (GIS) objectives**

1. Explain the physiological processes of GI motility, secretion, digestion, and absorption, and how disruptions lead to clinical symptoms such as nausea, vomiting, diarrhea, and constipation (KP-2.1, KP-2.2, KP-2.3).
2. Describe the anatomy of the gastrointestinal tract and hepatobiliary system, and correlate anatomical structures with clinical presentations such as dysphagia, abdominal pain, and GI bleeding (KP-2.1, KP-2.2).
3. Interpret abnormal liver function tests and describe the pathophysiology of jaundice, including hepatic metabolism, protein synthesis, detoxification, and bile production (KP-2.1, KP-2.2).
4. Identify the major causes and mechanisms of dysphagia, abdominal distension, and abdominal pain, integrating anatomical, neurological, and muscular components (PC-1.3, KP-2.1, KP-2.2).
5. Compare the mechanisms and clinical features of diarrhea and constipation, including differences in secretory, osmotic, and motility-related disorders (KP-2.1, KP-2.2, KP-2.3).
6. Correlate GI symptoms with region-specific pathologies, including peptic ulcers, inflammatory bowel disease, pancreatitis, and hepatic or biliary conditions (KP-2.1, KP-2.2).
7. Explain the microbiological and immunological factors that contribute to GI diseases, such as *H. pylori* infection, viral hepatitis, and immune-mediated conditions (KP-2.1, KP-2.2).
8. Interpret histologic and gross pathology findings of common GI and hepatic diseases, and relate them to clinical signs and lab results (PC-1.1).
9. Demonstrate foundational clinical reasoning by linking basic science principles to gastrointestinal disease presentations (KP-2.1, KP-2.2, KP-2.3).
10. Apply laboratory, imaging, and physical exam findings to construct differential diagnoses for GI complaints (PC-1.1, PC-1.3).

11. Describe the mechanisms of action, therapeutic indications, and adverse effects of pharmacologic agents used in the management of gastrointestinal and hepatobiliary disorders (PC-1.2).

### **Unit 3: Integumentary, Musculoskeletal, and Introduction to the Nervous Systems (IMN) objectives**

1. Describe the structure and function of the skin, hair, and nails, and correlate abnormalities with clinical dermatologic conditions such as non-blistering rashes, blistering rashes, tumors, and ichthyosis (KP-2.1, KP-2.2).
2. Explain the cellular and molecular basis of skeletal muscle contraction, including excitation-contraction coupling and the roles of calcium, actin, and myosin (KP-2.1, KP-2.2).
3. Describe the anatomy and function of bones and joints, and relate structural abnormalities to presentations such as fractures, joint pain, deformity, and limp (KP-2.1, KP-2.2).
4. Distinguish between benign and malignant lesions of the skin and soft tissue, using gross, histologic, and clinical features (KP-2.1, KP-2.2).
5. Identify the anatomical and physiological basis of common neurologic symptoms, including pain, numbness, tingling, weakness, and loss of motion, with an emphasis on peripheral nervous system disorders (KP-2.1, KP-2.2, PC-1.3).
6. Explain the immune and inflammatory mechanisms involved in dermatologic and rheumatologic diseases, such as autoimmune skin disorders and joint pathologies (KP-2.2, KP-2.3).
7. Correlate radiologic, gross, and histologic findings with clinical presentations of integumentary, musculoskeletal, and peripheral nervous system conditions (PC-1.1, PC-1.3, KP-2.3).
8. Integrate knowledge of wound healing, tissue repair, and fibrosis, and apply it to conditions involving the skin and musculoskeletal injuries (PBL-3.1).
9. Apply principles of neuroscience to understand the perception and modulation of pain, including the roles of peripheral nociceptors and neural pathways (KP-2.1, KP-2.2).
10. Demonstrate clinical reasoning by constructing differential diagnoses for common presentations such as rash, joint pain, weakness, and numbness, integrating anatomy, physiology, pathology, and imaging (PC-1.1, PC-1.3, KP-2.1, KP-2.3).
11. Interpret diagnostic imaging (X-ray, CT, MRI, ultrasound) in the context of musculoskeletal and neurologic conditions, and relate findings to physical exam and history (PC-1.1, PC-1.3, KP-2.3).
12. Describe the pharmacologic agents used to treat dermatologic, musculoskeletal, and neurologic conditions, including their mechanisms of action, therapeutic uses, and potential adverse effects (PC-1.2).

## **SPM II (PSPM 5012) course-level objectives:**

1. Demonstrate a foundational understanding of the structure and function of the hematologic, cardiovascular, respiratory, and renal systems, including their roles in maintaining homeostasis and responding to pathophysiologic stress (KP-2.1, KP-2.2).
2. Explain the cellular and molecular mechanisms that govern essential physiologic processes, including oxygen transport, blood pressure regulation, gas exchange, filtration, secretion, reabsorption, hemostasis, and immune surveillance (KP-2.1, KP-2.2., KP-2.3).
3. Describe the pathogenesis of common diseases affecting the blood, heart, lungs, and kidneys, including anemia, leukemias, coagulopathies, heart failure, arrhythmias, asthma, COPD, shock, glomerulonephritis, and electrolyte disorders (KP-2.2)
4. Interpret and integrate diagnostic data—including laboratory values (e.g., CBC, ABGs, electrolytes), imaging studies (e.g., ECG, chest X-ray, renal ultrasound), histopathology, and flow cytometry—to evaluate hematologic, cardiopulmonary, and renal conditions (PC-1.1, PC-1.3, KP-2.3).
5. Correlate abnormal clinical findings with disruptions in physiology and anatomy, such as murmurs with valve dysfunction, dyspnea with impaired gas exchange, or edema with altered renal or cardiac output (KP-2.1, KP-2.2).
6. Apply principles of embryology and developmental biology to understand congenital anomalies of the cardiovascular, respiratory, and renal systems (KP-2.1, KP-2.2).
7. Construct and prioritize differential diagnoses for clinical presentations such as fatigue, syncope, chest pain, hematuria, dyspnea, hypertension, and fluid or electrolyte imbalance, using integrated basic science and clinical knowledge (PC-1.3, KP-2.2, PNL-3.1).
8. Analyze the interplay between organ systems in health and disease, recognizing how dysfunction in one system (e.g., renal failure or anemia) can affect others (e.g., cardiovascular output or oxygen delivery) (KP-2.1, KP-2.2, KP-2.3).
9. Demonstrate foundational clinical reasoning skills by synthesizing patient history, physical examination, laboratory data, and imaging to arrive at evidence-based diagnoses and initial management plans (PC-1.2, KP-2.3).
10. Recognize the systemic impact of hematologic, cardiovascular, respiratory, and renal diseases, and appreciate the importance of early diagnosis, disease prevention, and coordinated care (PC-1.5, KP-2.4).
11. Describe the mechanisms of action, therapeutic uses, and adverse effects of pharmacologic agents used to treat common hematologic, cardiovascular, respiratory, and renal conditions, and explain how these agents restore or support disrupted physiologic processes (KP-2.2, KP-2.3).
12. Demonstrate professionalism through respectful, culturally sensitive interactions with peers, faculty, patients, and community members (PRO-5.1).
13. Maintain academic integrity by adhering to institutional policies and ethical standards in all coursework, assessments, and collaborative activities (PRO-5.6).



14. Fulfill academic and professional responsibilities by meeting deadlines, attending required sessions, and actively participating in group-based learning and clinical experiences (PRO-5.7).
15. Demonstrate effective communication and collaboration during case discussions, small-group learning, and interprofessional educational settings (ICS-4.2).
16. Communicate clinical information and engage in peer dialogue with compassion, respect, and patient-centered language, both verbally and in writing (ICS-4.3).
17. Analyze how social determinants of health, cultural values, and health literacy affect disease risk, care-seeking behaviors, treatment adherence, and health outcomes (KP-2.5).
18. Engage in peer education by participating in collaborative learning, peer teaching, and the development of instructional resources that enhance group understanding of foundational and clinical concepts (PBL-3.6).

#### **Unit 4: Hematologic System (HEM) objectives**

1. Explain the development and roles of red blood cells, white blood cells, and platelets in maintaining homeostasis (KP-2.1, KP-2.2).
2. Identify key plasma proteins, including coagulation factors and immunoglobulins, and describe their physiological roles (KP-2.1, KP-2.2).
3. Describe the cellular and molecular mechanisms of hemostasis and coagulation (KP-2.2, KP-2.3).
4. Explain the genetic and structural basis of disorders such as sickle cell disease and thalassemias (KP-2.1, KP-2.2).
5. Describe innate and adaptive immune functions of leukocytes (KP-2.1, KP-2.2).
6. Correlate abnormal white blood cell counts and morphology with infectious, inflammatory, and neoplastic processes (KP-2.1, KP-2.2).
7. Describe the diagnostic approach to lymphadenopathy, including relevant histopathology and flow cytometry findings (PC-1.1, PC-1.3, KP-2.3).
8. Analyze complete blood count (CBC), peripheral blood smears, coagulation studies, and hemoglobin electrophoresis (PC-1.1, KP-2.3).
9. Correlate lab results with clinical scenarios involving anemia, coagulopathies, leukemias, and lymphomas (PC-1.1, KP-2.3).
10. Correlate bone marrow structure and function with hematologic health and disease (KP-2.1).
11. Apply knowledge of hematologic physiology and pathology to develop differential diagnoses for bleeding, fatigue, pallor, infection, and lymphadenopathy, based on underlying mechanisms (PC-1.3, KP-2.1, PBL-3.1).
12. Demonstrate foundational clinical reasoning skills in evaluating hematologic disorders (KP-2.3, PBL-3.1).

### **Unit 5: Cardiovascular and Respiratory Systems (CVR) objectives**

1. Explain the structure and function of the heart, blood vessels, lungs, and airways (KP-2.1, KP-2.2).
2. Discuss the principles of systemic and pulmonary circulation, gas exchange, and respiratory mechanics (KP-2.1, KP-2.2).
3. Correlate auscultatory findings with valve function and cardiac anatomy (KP-2.1, KP-2.2).
4. Identify pathologic heart sounds and understand their diagnostic significance (PC-1.1, PC-1.3, KP-2.3).
5. Explain the mechanisms underlying chest pain, palpitations, syncope, and hypertension (KP-2.2, KP-2.3, PC-1.3).
6. Correlate these symptoms with underlying abnormalities in cardiac output, perfusion, and rhythm (KP-2.1, KP-2.2).
7. Describe the roles of cardiac output, systemic vascular resistance, and autonomic regulation (KP-2.1, KP-2.2).
8. Differentiate between types of shock and their hemodynamic profiles (KP-2.2, KP-2.3, PC-1.3).
9. Explain the control of ventilation, gas exchange, and oxygen transport (KP-2.1, KP-2.2).
10. Correlate dyspnea, cough, wheezing, and cyanosis with underlying pulmonary pathologies (KP-2.2, KP-2.3, PC-1.3).
11. Analyze ECGs, chest X-rays, spirometry, and blood gas parameters (PC-1.1, PC-1.3, KP-2.3).
12. Use clinical reasoning to approach presentations such as hemoptysis, cyanosis, and mediastinal masses (KP-2.3).
13. Discuss the mechanisms of ischemic heart disease, heart failure, arrhythmias, asthma, COPD, and interstitial lung disease (KP-2.2, KP-2.3).
14. Correlate gross and histologic findings with clinical syndromes (PC-1.1, PC-1.3, KP-2.3).
15. Integrate cardiovascular and respiratory physiology to explain hypoxemia, anemia, and oxygen content (KP-2.1, KP-2.2).
16. Explain the embryologic development of the cardiovascular and respiratory systems, and describe how disruptions in those processes lead to congenital abnormalities (KP-2.1, KP-2.2).
17. Integrate patient history, physical exam, and diagnostic data for presentations including chest discomfort, palpitations, cough, and dyspnea (PC-1.1, PC-1.3, KP-2.3).
18. Describe the mechanisms of action, clinical indications, and adverse effects of pharmacologic agents used to manage cardiovascular and respiratory conditions, including anti-hypertensives, antiarrhythmics, bronchodilators, and anti-inflammatory medications (KP-2.2, KP-2.3, PC-1.2).

### **Unit 6: Renal System (RNL) objectives**

1. Identify major anatomical structures and correlate them with functional roles in filtration, reabsorption, and secretion (KP-2.1, KP-2.2).
2. Explain the physiological mechanisms of renal function in maintaining fluid and electrolyte balance (KP-2.1, KP-2.2).

3. Describe how the kidney regulates sodium, potassium, water, and acid-base homeostasis (KP-2.1, KP-2.2).
4. Understand the hormonal control of renal function, including roles of ADH, aldosterone, and the renin-angiotensin system (KP-2.1, KP-2.2).
5. Understand serum creatinine, BUN, GFR, and urinalysis findings in health and disease (KP-2.1, KP-2.2).
6. Describe the pathophysiology of intrinsic renal diseases (KP-2.1, KP-2.2).
7. Recognize histologic and clinical features of common renal pathologies (e.g., glomerulonephritis, acute tubular necrosis) (PC-1.5).
8. Explain the causes and consequences of disorders of serum sodium and water balance (KP-2.1, KP-2.2).
9. Describe renal regulation of acid-base balance and abnormalities of hydrogen ion concentration (KP-2.1, KP-2.2).
10. Correlate clinical signs, symptoms, and laboratory findings with underlying renal pathophysiology (PC-1.1, KP-2.1, KP-2.2).
11. Interpret imaging and laboratory studies relevant to renal and electrolyte disorders (PC-1.1).
12. Analyze ultrasound, urinalysis, and electrolyte panels in the context of renal disease (PC-1.1, PC-1.1, KP-2.3).
13. Discuss the integration of renal function with other body systems (KP-2.1, KP-2.2).
14. Construct differential diagnoses and consider appropriate management strategies for common renal presentations (PC-1.2, PC-1.3).
15. Describe the mechanisms of action, therapeutic uses, and potential side effects of pharmacologic agents used to treat renal and electrolyte disorders, including diuretics, anti-hypertensives, and drugs affecting the renin-angiotensin-aldosterone system (PC-1.2).

Patient Care		
Educational Program Objectives		Outcome Measures
PC-1.1	Gather essential information about patients and their conditions through history taking, physical examination, and the use of laboratory data, imaging studies, and other tests.	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> </ul>
PC-1.2	Make informed decisions about diagnostic and therapeutic interventions based on patient	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit</li> </ul>

	information and preferences, up-to-date scientific evidence, and clinical judgment.	SPM summative exams; session-level formative quizzes)
PC-1.3	For a given clinical presentation, use data derived from the history, physical examination, imaging and/or laboratory investigation to categorize the disease process and generate and prioritize a focused list of diagnostic considerations.	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> </ul>
PC-1.5	Recognize a patient requiring urgent or emergent care, and initiate evaluation and management.	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> </ul>
<b>Knowledge for Practice</b>		
<b>Educational Program Objectives</b>		<b>Outcome Measures</b>
KP-2.1	Compare and contrast normal variation and pathological states in the structure and function of the human body throughout life.	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> <li>Exam – Nationally normed/standardized, subject (NBME)</li> </ul>
KP-2.2	Apply established and emerging foundational/basic science principles to health care.	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> <li>Exam – Nationally normed/standardized, subject (NBME)</li> </ul>
KP-2.3	Apply evidence-based principles of clinical sciences to diagnostic and therapeutic decision-making and clinical problem solving.	<ul style="list-style-type: none"> <li>Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> </ul>

		<ul style="list-style-type: none"> <li>• Exam – Nationally normed/standardized, subject (NBME)</li> </ul>
KP-2.4	Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.	<ul style="list-style-type: none"> <li>• Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> <li>• Exam – Nationally normed/standardized, subject (NBME CBSE)</li> </ul>
KP-2.5	Apply principles of social-behavioral sciences to patient care including assessment of the impact of psychosocial, cultural, and societal influences on health, disease, care seeking, and adherence and barriers to care.	<ul style="list-style-type: none"> <li>• Exam – Institutionally developed, written/computer-based (weekly SPM formative exams; end-of-unit SPM summative exams; session-level formative quizzes)</li> <li>• Exam – Nationally normed/standardized, subject (NBME CBSE)</li> </ul>
<b>Practice-Based Learning &amp; Improvement</b>		
<b>Educational Program Objectives</b>		<b>Outcome Measures</b>
PBL-3.1	Identify gaps in one's knowledge, skills, and/or attitudes, and perform learning activities to address them.	<ul style="list-style-type: none"> <li>• Narrative assessment (Formative assessment engagement rubric)</li> </ul>
PBL-3.4	Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems.	<ul style="list-style-type: none"> <li>• Narrative assessment (Formative assessment engagement rubric)</li> </ul>
PBL-3.6	Participate in the education of patients, families, students, trainees, peers, and other health professionals.	<ul style="list-style-type: none"> <li>• Narrative assessment (Formative assessment engagement rubric)</li> </ul>
<b>Interpersonal and Communication Skills</b>		
<b>Educational Program Objectives</b>		<b>Outcome Measures</b>
ICS-4.2	Communicate effectively with colleagues and other health care professionals.	<ul style="list-style-type: none"> <li>• Peer assessment (WCE Peer Assessment rubric)</li> </ul>

ICS-4.3	Communicate with sensitivity, honesty, compassion, and empathy.	<ul style="list-style-type: none"> <li>Peer assessment (WCE peer assessment rubric)</li> </ul>
<b>Professionalism</b>		
<b>Educational Program Objectives</b>		<b>Outcome Measures</b>
PRO-5.1	Demonstrate sensitivity, compassion, and respect for all people.	<ul style="list-style-type: none"> <li>Narrative assessment (Professionalism Card)</li> <li>Peer assessment (WCE peer assessment rubric)</li> </ul>
PRO-5.6	Demonstrate honesty and integrity in all professional and academic interactions.	<ul style="list-style-type: none"> <li>Narrative assessment (Professionalism Card)</li> <li>Peer assessment (WCE peer assessment rubric)</li> </ul>
PRO-5.7	Meet professional and academic commitments and obligations.	<ul style="list-style-type: none"> <li>Narrative assessment (Professionalism Card)</li> <li>Narrative assessment (Formative assessment engagement rubric)</li> <li>Peer Assessment (WCE peer assessment rubric)</li> </ul>

## Grading System

SPM is a pass/fail course. Successful passage requires that the student has not only achieved a level of competency as measured by performance on summative assessments but has also demonstrated a commitment to professional responsibility by being an active participant in the educational experience defined by the curriculum.

## Formative and Summative Assessments

### Formative Assessments

Regular formative student assessment and feedback are an important part of the educational experience. USMLE-style formative assessments will be provided each week to allow students to monitor progress and to identify potential deficiencies that warrant early remediation through self-study. Grades on formative assessments are for diagnostic purposes only and do not count toward the student's final grade. Weekly formative assessments are listed on the Elentra calendar view under 'asynchronous learning' and will be made available during the weekly formative testing window.

Once each formative assessment is completed within the designated timeframe, students will have the opportunity to review their score along with the answers and explanations for each question. Each student who completes a formative exam within the designated timeframe will receive an individual email listing the learning objectives linked to questions they missed.

Note that formative assessment performance reports will be generated at 12 AM on Mondays unless indicated otherwise on the Elentra calendar. These reports will be used to calculate class statistics, to send out individualized lists of missed learning objectives, and to populate the formative score tables on each student's e-portfolio. Consequently, students who do not complete a formative assessment prior to the reporting deadline will not receive an email containing missed learning objectives and will see a score of '0' on their e-portfolio entry for that formative. Each formative assessment will be subsequently available for students to retake and review for the duration of the first year of the pre-clerkship curriculum.

Narrative feedback will be provided on students' completion of their formative assessments. Regular engagement in formative assessment is a crucial pedagogical practice that fosters ongoing learning and improvement and offers specific, constructive insights into students' strengths and areas for growth. By providing timely narrative feedback to students on their overall engagement in the course's formative assessment program, our aim is to incentivize best practices so our learners can obtain timely, actionable feedback that that can be incorporated and addressed prior to the summative assessments, ultimately leading to better learning outcomes and a deeper understanding of the material.

Team-based learning in the Worked-Case Example activities requires active participation by everyone. There will be active peer-review of each team member by other members of the team. Less active members will likely receive constructive feedback and be encouraged to improve their preparation for and engagement in the activity.

### **Flashback Formative Assessments**

"Flashback" formatives will also be given on a weekly basis to promote spaced learning by regularly revisiting previously covered material. These formative assessments, designed to prompt students to recall and apply previously learned information, reinforce knowledge retention and deepen understanding. This approach ensures continuous engagement with the content and helps to mitigate knowledge attrition over time.

Grades on flashback formative assessments are for diagnostic purposes only and do not count towards the student's final grade. Weekly flashback formative assessments are listed on the Elentra calendar view under 'asynchronous learning' and will be made available during the weekly formative testing window. Once each flashback formative assessment is completed within the designated timeframe, students will have the opportunity to review their score along with the answers and explanations for each question. Each student who completes a formative exam within the designated timeframe will receive an individual email listing the learning

objectives linked to questions they missed. Note that formative assessment performance reports will be generated at 12 AM on Mondays unless indicated otherwise on the Elentra calendar. These reports will be used to calculate class statistics, to send out individualized lists of missed learning objectives, and to populate the formative score tables on each student's e-portfolio. Consequently, students who don't complete a formative assessment prior to the reporting deadline will not receive an e-mail containing missed learning objectives and will see a score of '0' on their e-portfolio entry for that formative.

## **Summative Assessments**

### **Anatomy Weekly Summative Assessments**

Each anatomy session will include complete an individual summative quiz that will be taken at home, under closed-book conditions, prior to the in-person anatomy activities. Each anatomy session will conclude with a summative quiz. The pre-session quiz will account for 25% of the total for each Anatomy session quiz grade, and the post-session quiz will account for 75% of the total Anatomy session quiz grade. The total of all Anatomy session quiz grades in a unit will account for 2–5% of the unit's in-house grade, depending on the number of Anatomy sessions included in each unit."

### **End-of-Unit Summative Assessments**

End-of-unit summative (formal) exams will be given at the end of the SPM Units. These exams will consist of 2 components: 1) Exam comprised of questions from NBME test bank and 2) Institutionally developed exam composed of questions written by faculty, with up to 5% of the exam including material from previous unit (summative exams will be delivered and proctored on campus. The end-of-unit exam score is determined by calculating the 50:50 weighted average of the NBME and in-house components. To pass an end-of-unit summative exam, students must achieve a minimum average score of 65%. In accordance with institutional policy, students are required to use their own laptops for all computer-based assessments, including end-of-unit summative exams. For more information regarding this requirement, refer to the [Bring Your Own Device Policy](#)

Tardiness for a summative assessment is disruptive, unprofessional, discourteous, and strongly discouraged. Students who arrive late, defined as after the assessment has started, will not be permitted entry to the assessment area and recorded as absent. An unexcused absence from a summative assessment will be considered a failure on the first attempt, and result in an initial grade of 'Fail' for the unit and an associated grade of 'DE' (Deferred) for the SPM semester course and they will be required to remediate during scheduled remediation dates, if criteria are met. Requests for excused absences may be made through the [PLFSOM pre-clerkship absence management system](#).



Students must follow the directions of the proctoring staff. Failure to comply with proctor instructions will result in a Professionalism Card for each infraction, and if the chief proctor determines the infraction to be severe enough, students can be expelled from the exam. Failure to comply with all the guidelines and instructions set forth for summative assessments may result in a failing grade for the SPM unit at the discretion of the course directors. Students who fail to comply with summative assessment guidelines and instructions will be referred to their college mentor(s) and/ or student affairs. If a student repeatedly fails to comply with all the guidelines and instructions set forth for summative assessments, that student can be referred to the Grading and Promotions Committee (GPC) for review of the proctoring report, course directors' recommendation, and for further action as they deem advisable.

### **SPM Unit and Semester Grade Determinations**

The semester courses SPM I and II, must be passed in order to progress to the second year. The SPM grading and promotion policy is designed to provide students with ample opportunity to demonstrate satisfactory knowledge and skills.

Detailed information regarding institutional and school-level grading procedures and transcript notations can be found in the TTUHSC-EP [‘Grading Procedures and Academic Regulations’ \(HSCPEP OP 59.05\) policy](#) and subsidiary PLFSOM [‘Grading Procedures and Academic Regulations’ policy, as well as the](#) PLFSOM [‘Grading, Promotion, and Academic Standing \(GPAS\) Policy’](#). SPM assessment and grading guidelines are summarized as follows:

#### **1. SPM Unit Grade (within a semester course)**

Unit and Course Directors are responsible for determining student progress. To receive a grade of pass (PA) for each SPM unit, a student must receive a minimum score of 65%, which is determined by averaging scores on NBME exam and in-house exam components.

One component of team-based learning in the Worked-Case Example activities requires is active participation by everyone. There will be active peer- review of each team member by other members of the team. Less active members will likely receive constructive feedback and be encouraged to improve their preparation for and engagement in the activity.

#### **2. SPM Semester Course Grade**

Student progress within the course will be determined by the Course Directors, based on student performance in the units of the course.

##### **1) *Grading***

A. **Pass (PA):** All Units must be passed.

B. **Deferred (DE):**

- a) *If one or two SPM units are failed in the first semester*, the first semester course grade initially will be recorded as “Deferred” (DE) and will be revised to “Pass” (PA) or “Fail” (FA) pending the outcome of unit remediation during the optional January remediation date and/or at the end of the academic year.
- b) *If one or two SPM units are failed in the second semester*, the second semester course grade initially will be recorded as “DE” and will be revised to “PA” or “FA” pending the outcome of unit remediation at the end of the academic year.
- c) In accordance with the PLFSOM [“Grading, Promotion, and Academic Standing \(GPAS\)” policy](#), a student with “DE” status may be referred to the GPC if it appears they are at substantial risk for academic failure.

**C. Fail (FA):**

- a) *If three SPM units are failed in the first semester*, the semester course grade will be recorded as “FA”, and the student will be referred to the GPC.
- b) *If two SPM units are failed in the first semester*, the semester course grade will be listed as ‘DE’ and the student will be given an opportunity to complete unit remediation during the optional January remediation date and/or at the end of the academic year. If an additional unit failure occurs in the second semester the student will receive a grade of ‘FA’ for both semesters and the student will be referred to the GPC. Similarly, if a student fails one unit in the first semester and goes on to fail two units in the second semester, a grade of ‘FA’ will be recorded for both semesters and the student will be referred to the GPC. Note that the above rules apply even if a student remediates a unit failure during the optional January remediation window.
- c) *If a student fails three SPM units in the second semester*, they will receive a grade of ‘FA’ for that semester and the student will be referred to the GPC. The grade for the first semester will remain as ‘PA’.

**2) Remediation**

If a grade of “DE” (Deferred) is recorded because one or two SPM units are failed in within a semester, students will be required to pass a remediation exam consisting of 50:50 weighted NBME and in-house component exams. The minimum passing score for an SPM unit remediation exam is 65%. If the remediation exam(s) for the failed unit(s) is/are passed, the semester course grade(s) will be converted from ‘DE’ to ‘PA’ (Pass). If the student fails to successfully remediate a failed unit, the corresponding semester course grade will be converted from ‘DE’ to ‘FA’ (Fail), and the student will be referred to the GPC. See [“Important Dates”](#) below for a list of remediation exam dates.

### 3) *Grade Release*

Barring extenuating circumstances, SPM unit grades will be released within 14 calendar days of the summative assessment date. If a student wishes to challenge their unit grade, they must do so by contacting the Course Director as outlined in the ["Grade Appeal and Complaint Policy"](#).

### 4) *Professionalism*

Be aware that formative and summative assessment items are part of a collective pool of secured assessment items designed to ensure that student proficiency meets the minimum standards necessary for the eventual practice of medicine. As such, the integrity and security of this pool must not be compromised, and students are strictly prohibited from copying, reproducing, transmitting, discussing, or distributing formative or summative assessment items. Any violation of this honor code, including failure to report a known offence, is a direct violation of the Code of Professional and Academic Conduct as described in the [Institutional Student Handbook](#), and could lead to academic warning, probation, or dismissal from PLFSOM.

## **Important Dates**

### **1. NBME Summative Examinations**

IHD Summative:	5 September 2025
GIS Summative:	17 October 2025
IMN Summative:	17 December 2025
HEM Summative:	5 February 2026
CVR Summative:	2 April 2026
RNL Summative:	6 May 2026
CEYE:	21-22 May 2026

### **2. Remediation Exam Dates**

Students who are deemed eligible will be permitted to remediate up to two SPM unit exams, two Society Community and Individual (SCI) semester grades (see the SCI syllabus), or a combination of one SPM unit exam and one SCI semester grade, over the course of the academic year. Students are required to schedule their remediation exams via e-mail with the Assessment Coordinator (kendrfar@ttuhsc.edu). The Assessment Coordinator requires a minimum of five business days' notice from students regarding their intended remediation

exam date. Students with an excused absence will be permitted to reschedule their remediation exam. Students who have an unexcused absence or arrive late for the remediation exam will receive a score of zero and be referred to the Office of Student Affairs.

Eligible students may select an SPM/SCI/CEYE remediation schedule that best suits their individual needs. Remediation dates and signup deadlines are specified below\*:

Remediation Date	Signup Deadline
5 January 2026	29 December 2025, 12 PM
4 June 2026	29 May 2026, 12 PM
5 June 2026	29 May 2026, 12 PM
11 June 2026	5 June 2026, 12 PM
12 June 2026	5 June 2026, 12 PM
17 June 2026	12 June 2026, 12 PM
18 June 2026	12 June 2026, 12 PM

Note that students needing to remediate the comprehensive end-of-year exam (CEYE) will also need to factor this into the above Spring remediation schedule. CEYE remediation must take place over two consecutive days.

\*It is essential that students choose a schedule that allows their individual remediation requirements to be completed by the last available date. Failure to do so will lead to a grade of “FA” for the associated SPM and/or SCI semesters.

## Course Policies and Procedures

### Attendance/Participation Policies

Students are expected to be present, prepared, and on time. Unless otherwise specified, lectures, labs, and small group activities begin on the hour. The Paul L. Foster School of Medicine curriculum is modeled on the concept of “learning communities” where each individual offers knowledge, skills, and experiences that are unique and beneficial to the community. Several SPM learning activities rely on active student participation and teamwork, and therefore, a student’s absence can be detrimental to the educational experience of their peers. Just as the effective practice of medicine requires physicians to demonstrate punctuality, teamwork, trustworthiness, and beneficence, similar behaviors and attitudes will be expected of our students. As outlined in the PLFSOM [“Pre-clerkship phase attendance policy”](#), failure to

meet the school's overall expectations for attendance and participation can lead to consequences including failure of a course or referral to the GPC for professionalism concerns. Referral to the GPC may lead to dismissal.

### ***Required SPM activities***

Attendance and punctuality will be monitored for required SPM activities, including the following:

- Worked Case Example sessions
- Specified lab-based learning sessions (e.g., Anatomy and Microbiology)

Sessions with required attendance or participation will be labeled on the Elentra calendar view at the beginning of each unit. Accountability and responsibility are important tenets of professionalism which pertain to medical professionals at all stages of education, training and practice. In this regard, medical students are expected to demonstrate punctuality and reliability for required educational activities in the SPM course, including the weekly Worked Case Example sessions.

- Students will be counted as absent from a required SPM event (such as Worked Case Example sessions) if they have not signed in by 10 minutes after the scheduled start time.
- Students have **10** calendar days after an unexcused absence is recorded to challenge its status as unexcused. If an unexcused absence is not challenged, it will remain unexcused.
- Students who sign in within 10 minutes after the scheduled start time will be marked as tardy.
- Attendance of required sessions will be tracked using a swipe-card system. A student who was recorded as tardy or absent will receive an automatically-generated notification email. The attendance record will become permanent **10** calendar days following the date of the notification email.
- If a student misses a required session (e.g., Anatomy, Microbiology, or Worked Case Example), they must contact both the teaching faculty and course director to arrange appropriate make-up work.

### ***Consequences***

Non-compliance with the SPM punctuality and attendance/participation policy will have consequences reflected in a student's academic record. These consequences may include: A failing grade on the basis of attendance or punctuality, required remediation or repeating of the course, documentation in the student's academic record and e-Portfolio, and reporting to

the Associate Dean of Student Affairs and the PLFSOM Grading and Promotion Committee. Understanding these consequences is crucial, as they may impact students' eligibility for prestigious awards or opportunities. Professionalism cards are a factor in award considerations, and a repeated lack of professionalism could lead to the GPC recommending dismissal.

### **Professionalism Card reporting system**

Three professionalism objectives from the institutional learning goals and objectives are addressed in the SPM syllabus:

- PRO-5.1        Demonstrate sensitivity, compassion, integrity, and respect for all people.
- PRO-5.6        Demonstrate honesty in all professional and academic interactions.
- PRO-5.7        Meet professional and academic commitments and obligations.

### **Exemplary Professionalism Recognition Cards**

When a student demonstrates exceptional initiative in meeting the SPM curriculum's learning goals and objectives, faculty or staff may complete a Professionalism Card (see Appendix) to formally recognize their efforts. The card will include the student's name, the date of the observed behavior, the reporter's name, the relevant institutional learning goal(s) and objective(s), and a brief description of the exemplary conduct (e.g., "Student was well-prepared and led the team discussion and peer teaching during today's Worked-Case Example activity, exceeding expectations in fulfilling their professional and academic responsibilities").

### **There are a number of situations when this may occur:**

#### ***1) Worked Case Example sessions:***

- "During today's Worked Case Example, the student arrived thoroughly prepared, actively contributed to the clinical reasoning process, and respectfully engaged peers to deepen group discussion. Their leadership promoted a collaborative and inclusive learning environment."
- "The student demonstrated exemplary professionalism by arriving early, organizing team materials, and facilitating peer understanding of complex immunology concepts. Their initiative greatly enhanced the group's learning experience."

#### ***2) Summative examinations:***

- "In preparation for the unit summative exam, the student demonstrated outstanding professionalism by organizing a faculty-led review session and sharing high-quality, evidence-based study materials with classmates."
- "The student showed exceptional dedication by proactively seeking faculty feedback on formative assessments and using that input to guide a focused and ethical approach to exam preparation."

### 3) Scholarly Activity and Research:

- "The student prepared an abstract and poster for a local, regional, or national conference, in collaboration with faculty, demonstrating strong communication skills and professionalism during interactions with faculty and attendees. They responded to feedback constructively, acknowledged collaborators appropriately, and served as a role model by encouraging peers to submit their own scholarly work."
- "The student demonstrated exemplary professionalism by contributing significantly to an original research project in collaboration with TTUHSC El Paso faculty. They consistently met deadlines, communicated effectively with the research team, and maintained high ethical standards throughout the project. Their dedication and scholarly rigor resulted in the acceptance of a peer-reviewed original research article, highlighting their commitment to advancing scientific knowledge and representing the institution with distinction."

### 4) *Other examples, including Afternoon Club participation:*

- "The student has maintained perfect attendance throughout the unit, consistently arriving on time and engaging actively in all large- and small-group sessions. Their reliability sets a strong example for peers."
- "The student regularly attends Afternoon Club sessions and has taken on a leadership role in organizing tutoring groups and supporting classmates academically. Their initiative reflects a strong commitment to academic community-building."
- "This student went above and beyond by preparing a mini-presentation for Afternoon Club to clarify a difficult concept from the week's lectures, demonstrating both mastery and a willingness to help others succeed."

### **Professionalism Concern Cards**

When a student fails to meet any of the above listed learning goals and objectives of the SPM curriculum, a professionalism card (see [Appendix](#)) will be filled out by the observing faculty or staff member. This card will contain the student's name, the date of the incident, the reporter's name, the associated institutional learning goal(s) and objective(s) related to the incident, and a brief description of the issue.

### **There are a number of situations when this may occur:**

#### *Worked Case Example sessions:*

- "The student arrived late to the Worked Case Example session without prior notice and did not engage in the group discussion or team quiz, impacting the team's ability to complete the activity effectively."

- "The student was unprepared for the Worked Case Example session and was unable to contribute meaningfully to the case discussion, missing an opportunity to fulfill their academic responsibilities to the team."

*Summative examinations:*

- "The student exhibited a lack of preparation, demonstrated by forgetting essential items such as a charging cable, laptop, or student ID."
- "The student failed to follow proctor instructions, reflecting a disregard for exam protocols and expectations."
- "The student left an exam without permission from the test proctors."
- "The student demonstrated disruptive behavior during the session, which negatively impacted the testing environment for others."

3) In the case of alleged academic misconduct, a student will also be referred to the Grading and Promotions Committee and/or the Student Conduct Committee. This includes but is not limited to the following scenarios:

- a. Dissemination of test items in any form. This includes written and oral.
- b. Possession of a prohibited item such as a cell phone
- c. Cheating

2) *Unspecified SPM sessions:*

- 4) any faculty may submit a professionalism card (exemplary or unprofessional) when a student fails to meet, or excels at, one or more professionalism institutional learning goals and objectives.

## **Excused absences**

If a student is unable to attend or be punctual for a required session, they may be granted an excused absence in accordance with the criteria set forth in the PLFSOM [Pre-clerkship phase attendance policy](#).

Students wishing to obtain an excused absence must submit a request to the [PLFSOM absence management system](#).

No credit will be given for any graded exercise missed without a valid excuse.



## **Narrative Evaluations and Feedback**

Examples of evaluation rubrics used for Professionalism Cards, Tankside Grand Rounds and Formatives are provided in the [Appendix](#). In the event that the rubrics undergo modification during the academic year, copies of the revised forms will be provided to students in advance of the associated activity.

## **Textbooks**

Required and recommended reading assignments are listed on the associated session pages in the Elenra calendar. Unless otherwise noted, textbook reading assignments will be available through the TTUHSC-EP electronic library. A curated list of relevant electronic textbooks is also available through the TTUHSC-EP Library at:

<https://el Paso-ttuhsc.libguides.com/PLFSOMtextbooks>

## **Professionalism, Plagiarism and Copyright Policies**

Professionalism is a core competency in Medicine. In SPM, as with all other courses in the Paul L. Foster School of Medicine, we expect students to adhere to the Standards of Professional Conduct and the Medical Student Honor Code as outlined in the PLFSOM Student Handbook and the TTUHSC-EP Institutional Handbook (available on the Office of Student Affairs website).

In particular, students must not copy, recreate, post or share SPM exam questions (formative or summative). Students who have delayed testing or remediation must not discuss the content of SPM exams with their peers prior to testing. Students must not submit false claims of attendance for required SPM sessions or attempt to sign-in for another student. Students must not attempt to obtain an excused absence for a required activity or examination through misrepresentation. Students must adhere to published policies related to plagiarism and copyright protection. Depending on the nature of the problem, and as determined by the Course Director(s), failure to act professionally may result in a grade of “FA” (Fail) for SPM regardless of the student’s academic performance, in accordance with the PLFSOM [“Grading, Promotion, and Academic Standing \(GPAS\)” policy](#). A student who witnesses academic misconduct or other unprofessional behavior is obligated to report that violation or risk facing disciplinary action. Violations of professionalism could result in referral to the Grading and Promotions Committee and possible dismissal from PLFSOM.

## **Student Mistreatment Statement**

Texas Tech University Health Sciences Center El Paso affirms the right of its students to a prompt and fair resolution of a complaint or grievance involving allegations of inappropriate behavior by other Texas Tech Health El Paso students or personnel toward students. Texas Tech Health El Paso does not tolerate either retaliation for reports made in good faith nor false reporting. TTUHSC El Paso strives for a positive and supportive learning environment. Any student experiencing mistreatment by faculty, staff, or other students is encouraged to report it

directly to Course Director(s) or use the “Submit Student Mistreatment report link” below to submit a report.

The links to submit a Student Mistreatment Report and to the “Student Mistreatment Policy” and “Student Complaint or Grievance Policies and Procedures” can be found below:

Links about the mistreatment can be found at <https://ttuhscep.edu/student-mistreatment/>

To report sexual misconduct or harassment, please follow the link below:

- [TITLE IX REPORTING](#)
- [HSC OPP 51.02 - Non-Discrimination & Anti-Harassment](#)
- [HSC OPP 51.03 Sexual Misconduct](#)

### **Office of Accessibility Services (OAS)**

TTUHSC EP is committed to providing equal access to learning opportunities to students with documented disabilities. To ensure access to this course, and your program, and to engage in a confidential conversation about the process for requesting accommodations in the classroom and clinical setting, please contact the Office of Accessibility Services (OAS) by calling 915-215-4398. Accommodations are not provided retroactively, so students are encouraged to register with OAS as soon as possible. More information can be found on the OAS website:

<https://el Paso.ttuhsc.edu/studentservices/accessibility/>

### **Statement of Accommodation for Pregnant or Parenting Students:**

To support the academic success of pregnant and parenting students and students with pregnancy-related conditions, Texas Tech University Health Sciences Center El Paso offers reasonable modifications based on students’ related needs. Any student who is pregnant, parenting a child up to age 18, and/or has conditions related to pregnancy may contact the Manager of Accessibility and Student Advocacy to discuss available support and resources. Additionally, the Title IX Coordinator and Parenting and Pregnancy Liaison is available to work with students and others, as needed, to ensure equal access to the University’s education programs or activities. For more information regarding supportive measures, please visit the TTUHSC El Paso Pregnant and Parenting Students [website](#). Students may submit a [Pregnancy and Parenting Support Form](#) to request assistance or contact:

Manager of Accessibility and Student Advocacy, Norma Fuentes  
at [norma.fuentes@ttuhsc.edu](mailto:norma.fuentes@ttuhsc.edu) or 915.215.4398

TTUHSC Title IX Coordinator and Pregnant and Parenting Student Liaison, Leslie Bean,  
at [leslie.bean@ttuhsc.edu](mailto:leslie.bean@ttuhsc.edu) or 806.743.9861.

# Appendix

## Faculty Roster: SPM Year 1 Unit Directors

### Unit 1 – Introduction to Health and Disease (IHD):

Jessica Chacon, PhD

Ghislaine Mayer, PhD

Brittany Shoemake, MD

Blanca Garcia, MD (Pediatrics)

### Unit 2 – Gastrointestinal System (GIS):

Nathan Holland, PhD  
Waymon Holloway, PhD

Ghislaine Mayer, PhD  
Tamer Fandy, PhD

Marc Zuckerman, MD (Internal Medicine)

### Unit 3 – Integumentary, Musculoskeletal and Nervous Systems (IMN):

Rebecca Campos, MD

Tamer Fandy, PhD

Thomas Greiner, PhD

Brittany Shoemake, MD

Karim Elsharkawy (Orthopedic Surgery and Rehabilitation)

### Unit 4 – Hematologic System (HEM):

Jessica Chacon, PhD

Tamer Fandy, PhD

Angelica Padilla, MD

Curt Pfarr, PhD

### Unit 5 – Cardiovascular and Respiratory Systems (CVR):

Nathan Holland, PhD

Waymon Holloway, PhD

Mariela Lane, MD

Komal Marwaha, MD, PhD

**Unit 6 – Renal System (RNL):**

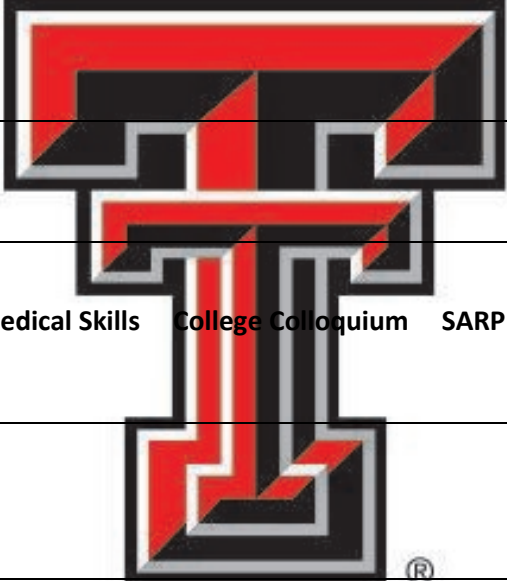
Nathan Holland, PhD

Mariela Lane, MD

Komal Marwaha, MD, PhD

Fernanda Payan-Schober, MD (Internal Medicine)

## Professionalism Card

<b>Student Name:</b>	
<b>Faculty/Staff/Student Name:</b>	
<b>Date:</b>	
<b>Course (Circle One):</b> SPM   SCI   Medical Skills   College Colloquium   SARP   Other	
<b>Description of Event:</b>	
<b>Did this demonstrate exceptional professionalism? (Circle One)</b> Yes   No	
<b>Did this demonstrate a lapse in professionalism? (Circle One)</b> Yes   No	
<b>Suggestions for improvement?</b>	

## **Example Rubric for Mid-unit narrative feedback based on weekly formative participation**

### **1. Completed all formatives on time and received a score of 65% or greater:**

Consistently completing all formative assessments on time and achieving scores above 65% demonstrates your academic commitment, as well as strong dedication to identifying knowledge gaps and actively working to address them. Keep up the great work!

### **2. Completed all formatives on time and received a score of less than 65%:**

You have shown academic commitment by completing all formatives on time, but there are areas for improvement as indicated by scores below 65%. Let's work together to address knowledge gaps, enhance your understanding, and ensure improved performance on future assessments.

### **3. Did not complete formatives:**

Not completing formatives is concerning, as it indicates a lack of academic commitment and utilizing opportunities to identify potential gaps in your knowledge. It is crucial to actively participate in all assignments to enhance your learning experience and performance in the course. Let's discuss strategies to ensure your full participation moving forward.