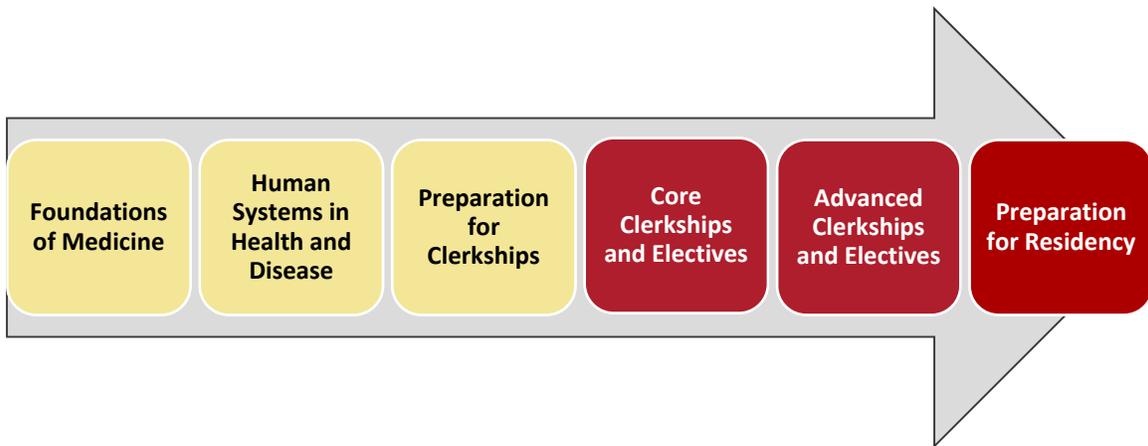


MEDICINE



Human Systems in Health and Disease BMS 6042 Cardiovascular and Pulmonary Systems



Florida State University
College of Medicine

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Overview

Learning Objectives

Detailed learning objectives are provided for each session in the course.

Course Objectives mapped to Education Program Objectives (EPO)

	Course Objectives	EPOs	Means of Assessment
CVP 1	Demonstrate effective communication with patients and their families from diverse backgrounds, including culturally and linguistically appropriate interviewing skills, appropriate use of an interpreter, and culturally appropriate verbal and non-verbal behaviors that promote building rapport and trust, and accurate and appropriate vocabulary and concepts about cardiovascular and respiratory disorders and diseases, mental health issues, and sex and gender identity	2.2, 2.3, 4.1, 5.5	Observation by faculty, staff, preceptor and standardized patients
CVP 2	Demonstrate the ability to organize and conduct a medical encounter, elicit an accurate and thorough patient-centered medical history and physical and mental status exams appropriate for the patient's reason for visit, and assess functional capacity	1.2, 1.3, 5.1, 5.5	Observation by faculty, preceptor, staff, and standardized patients
CVP 3	Demonstrate clinical skills and clinical reasoning necessary to establish the appropriate diagnosis and management of cardiovascular and pulmonary disease, including selection, justification, and interpretation of appropriate diagnostic laboratory tests and imaging, use of point-of-care tools to access guidelines and assess risk, provision of rationales for treatment and management options, and communication of diagnostic information and reasoning, intervention options, and a suggested plan of care with truthfulness, sensitivity and empathy.	1.2, 1.3, 1.4, 1.6, 2.3, 3.9	Observation by faculty in CLC and small groups
CVP 4	Compare and contrast the normal and abnormal structure and function of the cardiovascular and respiratory systems in health and disease.	2.2, 2.3	Quizzes and Exams
CVP 5	Anticipate and recognize the clinical, physiologic, and pathologic effects and mechanisms of cardiac and respiratory injury and disease, and explain these in terms of the underlying basic science.	2.2, 2.3	Quizzes and Exams
CVP 6	Identify and provide rationales for the pharmacologic and non-pharmacologic management strategies for the treatment of patients with cardiac and respiratory disorders.	2.2, 2.3, 2.4, 2.5, 9.1, 9.2	IPCS assignment; Quizzes and Exams
CVP 7	Identify social, behavioral, environmental and epidemiologic issues related to cardiovascular and respiratory disease, and that may impact care of patients.	2.2, 2.3, 2.4, 2.5	Quizzes and Exams; Observation by faculty in small groups
CVP 8	Demonstrate the ability to assess the "patient's unique context" (including family, community, cultural, spiritual, historical and legal factors) and incorporate that information into his/her care	2.5, 9.1, 9.2	Observation by faculty in CLC; Quizzes and Exams
CVP 9	Demonstrate the ability to recognize when one has reached the limits of their knowledge when applying it to understanding clinical problems	3.1	Observation by faculty and preceptor; Self-assessment
CVP	Engage in self-evaluation and reflection, including related to cultural,	3.1, 3.2,	Observation by faculty;

10	moral and ethical issues encountered in the care of patients, to identify biases and take a non-judgmental approach to patient care, to develop self-awareness of knowledge, skill and emotional limitations, to set learning and improvement goals, and to engage in appropriate help-seeking behaviors.	4.7, 5.5, 8.1	Self-assessment
CVP 11	Demonstrate the habits of life-long learning – the identification of personal knowledge gaps and application of strategies to find and interpret information to address those gaps, including the ability to interpret and evaluate the literature on disease mechanisms and emerging therapeutic strategies based on principles of biostatistics, study design, and evidence based medicine.	2.4, 3.1, 3.2, 3.3, 3.6	Observation by faculty; participation in case-based learning activities; PICO assignment
CVP 12	Apply the principles and methods of Evidence-Based Medicine to acquire, appraise, and assimilate new clinical information to improve patient care	1.7, 3.6, 3.7, 3.8	PICO assignment
CVP 13	Demonstrate effective communication with peers, faculty and other health professionals, including use of accurate and appropriate vocabulary and concepts related to cardiovascular and respiratory conditions, sex and gender identity, and mental health, and the ability to clearly and accurately summarize patient findings in oral presentations and common written formats.	4.2, 4.5, 7.3, 7.4	Observation by faculty, preceptor and SPs; Peer feedback on PICO assignment
CVP 14	Demonstrate professional attitudes and behaviors in all interactions with faculty, staff, peers and patients and in all activities, including: maintaining confidentiality for patients who participate in the course; demonstration of respect, empathy, compassion, responsiveness and concern regardless of the patient's problems or personal characteristics; integrity and adherence to ethical standards including informed consent; and completion of all required activities in a timely fashion	1.7, 5.1, 5.3, 5.4, 5.5, 5.6	Observation by faculty, preceptor, staff, peers, and standardized patients; IPCS assignment; tracking of required activities
CVP 15	Identify social determinants of health and discuss their relationship to health and wellness, including for underserved populations	2.4, 2.5, 9.1, 9.2	Quizzes and exams; participation in small group discussions
CVP 16	Identify the unique and diverse knowledge, skills, and abilities of other professionals, and their contribution to providing high quality patient care, and exchange relevant information effectively with other health professionals in a respectful manner, considering varied perspectives and ensuring common understanding of and agreement with decisions.	7.1, 7.2, 7.3, 7.4	IPCS assignments and reflection
CVP 17	Demonstrate the ability to generate and statistically test an hypothesis from a large data set, and report the results in abstract form.	2.6, 3.9	Secondary data research assignments
CVP 18	Demonstrate an understanding of the ethical, clinical, legal and financial issues associated with end-of-life care.	4.6	Quizzes and exams; participation in small group discussion
CVP 19	Demonstrate the ability to identify age- and gender-appropriate preventive care needs and resources and to discuss their benefits, to individuals, populations, and society, and their impact on health care financing.	1.7, 2.2, 2.4, 2.5, 3.6, 6.3	Quizzes and exams; faculty observation in CLC; participation in small group discussion
CVP 20	Assess methods utilized by the pharmaceutical industry to influence physician prescribing behavior and patient expectation.	1.6, 2.5, 3.8, 3.10, 5.6, 8.6, 8.8	Quizzes and exam; participation in class discussion; IPCS assignments

FSU COM Education Program Objectives

1	PATIENT CARE: Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
1.1	Perform all medical, diagnostic, and surgical procedures considered essential for the area of practice
1.2	Gather essential and accurate information about patients and their condition through history-taking, physical examination, and the use of laboratory data, imaging and other tests
1.3	Organize and prioritize responsibilities to provide care that is safe, effective, and efficient
1.4	Interpret laboratory data, imaging studies, and other tests required for the area of practice
1.5	Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
1.6	Develop and carry out patient management plans
1.7	Counsel and educate patients and their families to empower them to participate in their care, showing consideration for their perspective throughout treatment
1.8	Provide appropriate referral of patients including ensuring continuity of care throughout transitions between providers or settings, and following up on patient progress and outcomes
1.9	Provide health care services to patients, families, and communities aimed at preventing health problems or maintaining health
1.10	Provide appropriate role modeling
1.11	Perform supervisory responsibilities commensurate with one's roles, abilities, and qualifications
2	KNOWLEDGE FOR PRACTICE: Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care
2.1	Demonstrate an investigatory and analytic approach to clinical situations
2.2	Apply established and emerging bio-physical scientific principles fundamental to health care for patients and populations
2.3	Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care
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
2.5	Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial-cultural influences on health, disease, care-seeking, care-compliance, barriers to and attitudes toward care
2.6	Contribute to the creation, dissemination, application, and translation of new health care knowledge and practices
3	PRACTICE-BASED LEARNING AND IMPROVEMENT: Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning
3.1	Identify strengths, deficiencies, and limits in one's knowledge and expertise
3.2	Set learning and improvement goals
3.3	Identify and perform learning activities that address one's gaps in knowledge, skills or attitudes
3.4	Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
3.5	Incorporate feedback into daily practice
3.6	Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems
3.7	Use information technology to optimize learning
3.8	Participate in the education of patients, families, students, trainees, peers and other health professionals
3.9	Use information technology to obtain and utilize information about individual patients, populations of patients being served or communities from which patients are drawn to improve care
3.10	Continually identify, analyze, and implement new knowledge, guidelines, standards, technologies, products, or services that have been demonstrated to improve outcomes
4	Interpersonal and Communication Skills: Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
4.1	Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
4.2	Communicate effectively with colleagues within one's profession or specialty, other health professionals, and

	health related agencies
4.3	Work effectively with others as a member or leader of a health care team or other professional group
4.4	Act in a consultative role to other health professionals
4.5	Maintain comprehensive, timely, and legible medical records
4.6	Demonstrate sensitivity, honesty, and compassion in difficult conversations about issues such as death, end-of-life issues, adverse events, bad news, disclosure of errors, and other sensitive topics
4.7	Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions
5	PROFESSIONALISM: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles
5.1	Demonstrate compassion, integrity, and respect for others
5.2	Demonstrate responsiveness to patient needs that supersedes self-interest
5.3	Demonstrate respect for patient privacy and autonomy
5.4	Demonstrate accountability to patients, society and the profession
5.5	Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
5.6	Demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and business practices, including compliance with relevant laws, policies, and regulations
6	SYSTEMS-BASED PRACTICE: Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care
6.1	Work effectively in various health care delivery settings and systems relevant to their clinical specialty
6.2	Coordinate patient care within the health care system relevant to their clinical specialty
6.3	Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care
6.4	Advocate for quality patient care and optimal patient care systems
6.5	Participate in identifying system errors and implementing potential systems solutions
6.6	Work in interprofessional teams to enhance patient safety and improve patient care quality
7	INTERPROFESSIONAL COLLABORATION: Demonstrate the ability to engage in an interprofessional team in a manner that optimizes safe, effective patient- and population-centered care
7.1	Work in cooperation with other professionals to establish and maintain a climate of respect, dignity, diversity, ethical integrity, and trust in order to enhance team functioning and serve the needs of patients, families, and populations
7.2	Utilize and enhance one's own expertise by understanding and engaging the unique and diverse knowledge, skills, and abilities of other professionals to enhance team performance and maximize the quality of patient care
7.3	Exchange relevant information effectively with patients, families, communities, and other health professionals in a respectful, responsive, and responsible manner, considering varied perspectives and ensuring common understanding of, agreement with, and adherence to care decisions for optimal outcomes
7.4	Participate in and engage other members of interprofessional patient care teams in the establishment, development, leadership, and continuous enhancement of the team in order to provide care that is safe, timely, efficient, effective, and equitable
8	PERSONAL AND PROFESSIONAL DEVELOPMENT: Demonstrate the qualities required to sustain lifelong personal and professional growth
8.1	Develop the ability to use self-awareness of knowledge, skills and emotional limitations to engage in appropriate help-seeking behaviors
8.2	Demonstrate healthy coping mechanisms to respond to stress
8.3	Manage conflict between personal and professional responsibilities
8.4	Practice flexibility and maturity in adjusting to change with the capacity to alter behavior
8.5	Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients
8.6	Provide leadership skills that enhance team functioning, the learning environment, and/or the health care delivery system
8.7	Demonstrate self-confidence that puts patients, families, and members of the health care team at ease
8.8	Recognize that ambiguity is part of clinical health care and respond by utilizing appropriate resources in dealing with uncertainty
9	FSU COM MISSION: Demonstrate responsiveness to community needs – especially elder, rural, minority and underserved populations
9.1	Describe the social determinants of health, and identify how they create opportunities for and barriers to

	wellness for underserved populations.
9.2	Identify community resources and the ways physicians can partner with them to improve individual and population health and address social determinants of health.
9.3	Discuss the process and components of community health assessment.
9.4	Illustrate how community health assessment is used to identify the health needs and issues of a given population and inform decision making to improve population health status.

Course Format

The course emphasizes **engaged** and **active learning** through a variety of individual, interactive large group, and case-based small group learning activities as well as standardized patient encounters in the Clinical Learning Center and a Preceptorship experience in the office of a primary care physician in the community. The purpose of the preceptorship is to provide the student with the opportunity to practice history taking, physical examination skills, clinical reasoning skills, documentation skills and to observe patient care being delivered in a community-based setting. Students will be scheduled to spend a minimum of 3 hours with the preceptor every other week. Formative on-line assessment materials emphasize the development of thinking skills through analysis of data and cases, including biostatistics and epidemiology and NBME/USMLE-type questions. Students are expected to self-assess their learning needs and set goals to address them with the aid of faculty and their learning groups.

Large Group Sessions

Formal lectures are limited in favor of interactive large group sessions. This learner-centered model uses the principles of active learning. Pre-class preparation by students allows large group time to be spent in active discussion and consolidation of learning that takes maximum advantage of faculty expertise in application exercises and other instruction methodologies. Pre-class preparation assignments prime students for learning with basic didactic material presented through a variety of materials including interactive modules, self-assessment exercises, video and PowerPoint presentations, and textbook and journal readings. Interactive large group sessions apply and extend that knowledge through clinical case-based inquiry. Success depends on student engagement, preparation, and trust in the safe environment we maintain to encourage students to be curious and even to take intellectual risks. **The emphasis is on developing integrated basic and behavioral science concepts in a clinical context.** Whenever possible, real patients will be present to share their stories and demonstrate signs of their disease. Whenever patients are present, we ask that students wear their white coats and close their computers and other mobile devices as demonstration of respect for these wonderful patients who are willing to help us learn.

Small Group Sessions (attendance required)

Small group exercises are case- and/or problem-oriented. Some sessions pattern thinking through **progressive disclosure**, others focus on **concept development** through guided engagement with data, while others employ the Jigsaw paradigm to focus on discovering **similarities and differences** of presentations or aspects of disease – the basis of differential diagnosis. Small group exercises are designed for **engaged** and **active learning** and emphasize reasoning, hypothesis formation, and hypothesis testing. The groups evaluate cases in terms of stated objectives and define additional learning objectives they will need to resolve. In Jigsaw exercises each small group (5-6) of students is assigned a case presentation to discuss and form an hypothesis. Typical questions to be resolved may include: *What explains the presentation? What may be the cause? What more do we need or want to know? How do we acquire and interpret needed information? What are the options/priorities for treatment and management?* Then the small groups re-mix such that each member of each new group “owns” a different case or aspect of a case, which he/she then “teaches” to the new group. In all small group exercises, **all members of the group share responsibility for analyzing and explaining the clinical presentations.** The value of small group exercises is not always the “answer,” but the **reasoning** behind it. Basic and clinical science faculty will be present to ask helpful questions if your group is “stuck” and to encourage your curiosity. During small group exercises, you are free to use any resources (unless otherwise instructed). At the end of each small group exercise, you will be expected to review the complete cases and create a summary in your own words of the “take home” points of the cases considered as a group. **Summarizing and paraphrasing in your own words is a powerful learning tool.**

Interprofessional Collaborative Skills (IPCS) Assignments:

All ICS assignments, templates, links and submissions are through the [Class of 2023 Interprofessional Collaborative Skills course site on Canvas](#).

Office Team roles and responsibilities

Prior to your first Preceptor visit, you will familiarize yourself with the principles of health care team structure, using materials provided from Team STEPPS®. After your first Preceptor visit, you will complete the Primary Care Office-based Team template. After your last visit (during the **Endocrine and Renal-Urinary Systems** course), you will complete the Teamwork Perceptions Questionnaire.

The consultative process

Medical students will be assigned to interprofessional teams which will include another medical student and/or PA student and a PharmD student from FAMU.

The Consultative Process: Pharmacy consult module is comprised of 4 components.

1. Each medical student pair or MD/PA student pair will formulate **questions and concerns related to medication use**, based on analysis of a virtual patient case and share that list with their PharmD Team mate on Canvas. The PharmD student will independently create and share a similar list.
2. Using the **Canvas Discussion** board on the Class of 2023 IPCS site, the Team will compare and contrast their perspectives and approaches to the patient and concerns.
3. Based on that discussion, the Team will compose and submit a **collaborative summary** synthesizing the medical and pharmacy perspectives for faculty feedback.
4. Each medical student will then submit a brief **reflection** on what they learned about the different approaches and perspectives of the different professions, and will share those insights with their clinical skills small group. Written feedback will be provided by small group facilitators.

PICO Assignment

PICO is a format physicians can use for converting clinical scenarios to **researchable** and **answerable** questions to provide evidence-based care of patients. This format can be used to answer questions about treatment, diagnosis, risk factors, etiology, statistics and phenomena.

- **P** = Patient, Population and/or Problem
- **I** = Intervention, treatment, Prognostic factor, and/or Exposure (Which specific are you considering?)
- **C** = Comparison and/or Control (What is the main alternative to the above?)
- **O** = Outcome (What are you trying to accomplish, improve, or effect?)

During the **Cardiovascular and Pulmonary Systems** block each student will develop a clinically relevant question, framed using the PICO format. Students will independently research the answer to their question, evaluate, and report the results of their search. The completed assignment is to be submitted *via* Canvas **no later than 5 pm, February 7, 2020**. Supporting materials and suggestions about PICO questions and EBM resources for answering these questions are available in the Resource Library on Canvas. During the week following the submission, each student will provide feedback to other students (assigned) *via* Canvas.

Preceptorship (attendance required)

Approximately every other week each student will spend a half day in the office of a community physician assigned as their Preceptor. Attendance at these sessions and documentation of patient encounters in the [Encounter Tracking System \(ETS\)](#) no later than midnight of the day of each preceptor visit are required.

Clinical Learning Center (CLC) (attendance required)

Throughout the block learners will continue to develop their clinical skills and clinical reasoning during individual or paired SP encounters in the CLC. These encounters will not be restricted to the exam or problems associated with the specific systems being studied in this block. They will often include reviews of prior organ systems and demonstrations of how systems intersect and impact one another.

Professionalism

Medicine is a Profession, which means it entails unique responsibilities and obligations as well as unique privileges. “Professional identity formation” is an objective as important as learning the sounds and anatomy of the heart and lungs, but requires a different set of learning skills. Important among those are reflection, self- and peer assessment, deliberate practice, and learning for mastery (not grades).

Two essential Professional behaviors that will become a part of your everyday life are founded on respect for patients:

Confidentiality: Patients — including Standardized Patients — deserve to be treated with respect. Respect for patients includes keeping all patient information confidential. Patient information may be shared with other health care professionals that have a legitimate, professional “need to know,” or with specific family members, friends, or others that have permission from the patient for access to the information.

Be especially conscious about discussions of patients in public places. Even when patient names are not used, the discussion may reveal the patient’s identity to others who overhear the discussion. Rather than risk a violation of patient confidentiality, discuss patients only in a private setting and only with individuals who have a legitimate need to know.

Be careful to keep all patient notes, reports and materials confidential. Patient records should be returned to faculty, destroyed, or kept in a secure place.

Similarly, your classmates deserve to be treated with respect. Information learned about your classmates and their families while in class is considered confidential. You are not free to disclose this material to others without the specific consent of the person.

Violation of confidentiality may result in a [Report of Concern for Unprofessional Behavior](#) and may be referred to the Student Evaluation and Promotion Committee (SEPC). Egregious unprofessional behavior of any variety may result in suspension of the student, a failing grade for the course, and/or referral to SEPC.

Professional Attire: Medical students, faculty and staff are all ambassadors and representatives of the College of Medicine and of the medical profession. Appearance and behavior should at all times demonstrate respect for the profession and for our patients. The needs of patients must always come first, and any barriers to meeting those needs (including attire, appearance and grooming) must be removed.

Professional attire should be worn in settings where students interact with people from outside the COM, and particularly when interacting with Standardized Patients (SPs) in the CLC, on a “house visit,” or when in a preceptor’s office or clinic, a hospital or nursing facility. Professional attire should also be worn when patients, guests, or visitors are present in large or small group sessions.

Specific standards for professional attire for [men](#) and for [women](#) are detailed at the end of this document and can always be found on the course Canvas site.

Content Sequence

Content sequence in Cardiovascular and Pulmonary System:

Throughout this block, continued development of clinical reasoning and clinical skills focuses on advanced history taking, advanced physical exam maneuvers, and the interpretation of common diagnostic tests relevant to these systems. Standardized patient interactions continue with emphasis on clinical reasoning skills using problem oriented and chronic disease encounters that are not limited to block-specific content.

Cardiovascular System: Structure and Function

- Cellular and tissue structure and physiology of the heart and vessels
- Cardiac cycle
- Heart sounds and EKG
- Hemodynamics and blood pressure control mechanisms

Cardiovascular Disease

- Hypertension and arteriosclerosis
- Ischemic heart disease, embolisms, myocardial infarction, congestive heart failure
- Intrinsic vascular diseases, diseases of the venous/lymphatic system
- Valvular disease: congenital, rheumatic, idiopathic
- Cardiomyopathies and congenital heart disease
- Endocarditis, myocarditis and pericardial disease
- Cardiac and vascular tumors

Respiratory Tract: Structure and Function

- Lung development, maturation, and changes with aging
- Respiratory physiology: ventilation, gas exchange, regulation of breathing
- Acid-base metabolism
- Heart-lung interaction
- Microbiome of the upper respiratory tract

Respiratory Diseases

- Infections and environmental exposures; allergies and immunologic mediators
- Asthma, bronchitis, pneumonias, COPD, emphysema
- Mechanisms and clinical effects of drugs used in treating asthma, COPD, allergic rhinitis, cough, infections of the respiratory tract, common respiratory disorders in the newborn, and pulmonary hypertension
- Congenital disorders and malformations, CF
- Cancer of the lung and larynx
- Pulmonary manifestations of systemic disease

Required Materials (All required texts are available as ebooks through the [COM library](#))

[Basic and Clinical Pharmacology](#) (Katzung)

[Basic Interviewing Skills](#) (Gabriel)

[Bates Guide to Physical Examination and History Taking](#)

[Behavioral Science in Medicine](#) (Fadem)

[Cecil Essentials of Medicine](#) (Wing)

[Felson's Principles of Chest Roentgenology](#) (Goodman)

[Histology: A Text and Atlas With Correlated Cell and Molecular Biology](#) (Ross)

[How the Immune System Works](#) (Sompayrac)

[Physiology](#) (Costanzo)

[Rapid Interpretation of EKGs: An Interactive Course](#) (Dubin)

[Resolving Ethical Dilemmas: A Guide for Clinicians](#) (Lo)

[Robbins and Cotran Pathologic Basis of Disease](#) (Kumar)

[Sherris Medical Microbiology](#) (Ryan)

[Smith's Patient-Centered Interviewing: An Evidence-Based Method](#) (Fortin)

[Understanding Health Policy: A Clinical Approach](#) (Bodenheimer)

Additional required readings will be assigned from a variety of sources. These readings will be provided to you and posted on Canvas when possible.

1. Other materials required for clinical sessions
 - a. Clinical examination equipment: Each student must purchase and/or have available the following clinical examination equipment: stethoscope with diaphragm, bell and pediatric option, oto/ophthalmoscope, #128 and #512 tuning forks, penlight, reflex hammer, Rosenbaum eye chart and a sphygmomanometer with pediatric, adult, and large adult sized cuffs. Opportunities to purchase this equipment at a discount will be provided prior to orientation. Bring your examination equipment with you to each CLC session.
 - b. Also bring the following to each session in the CLC:
 - A watch capable of measuring seconds
 - A pen for writing (blue or black ink)
 - The student's personal mobile device loaded with the appropriate medical software/applications.

Grading System

Description of Student Assessment Methods and Grading

Examinations

There will be a mid-block assessment and a final assessment. The midblock assessment contributes 40% and the final assessment 60% to the final average. A portion of both assessments will be comprised of questions from the NBME (National Board of Medical Examiners) question bank. The questions on this customized NBME exam will be selected by course faculty as appropriate assessment of course objectives. Formative quizzes and/or other assessment exercises will be required throughout the block.

Written exams

Multiple choice and other question formats are used to assess both content knowledge and application skill (ability to solve problems, demonstration of clinical reasoning, interpretation of images and laboratory results, etc.) on written exams. Exam questions may be drawn from material presented in any activity or assignment, from assigned readings, and from CLC session, in addition to questions from the NBME question bank. Exams are cumulative across the curriculum, i.e., main concepts, content and skills from material presented in prior courses may be included in questions. Written questions may also be presented in context with standardized patient encounters during the examination.

Students must score a cumulative average of $\geq 70\%$ on all exam questions to pass the written examination component of the course. Students with a written exam average below 70% risk failing **Cardiovascular and Pulmonary Systems** and being referred to the Student Evaluation and Promotions Committee.

Clinical skills exams / Objective Structured Clinical Examination (OSCE)

Formative and summative assessment of clinical skills occurs periodically throughout the preclerkship phase. OSCEs are skills-based examinations conducted in the CLC to assess the student's ability to demonstrate clinical skills and behaviors. OSCEs typically consist of several "stations." Each station will require the student to demonstrate one or more clinical skills/behaviors that will be assessed by a trained observer using established performance criteria for that assessment.

Students must score $\geq 80\%$ on the OSCE in order to pass the course in which the OSCE occurs. Students who do not achieve a score of 80% or higher on the OSCE must remediate these clinical skills. An OSCE remediation plan must be determined prior to the beginning of the summer break. CLC formative assessments during **Cardiovascular and Pulmonary Systems** will emphasize the student's ability to conduct a problem-oriented patient encounter and a chronic illness patient encounter.

Formative Quizzes (due each Monday no later than 8 AM)

Throughout the course there will be weekly Firecracker quizzes and faculty-written on-line quizzes. These formative tools are "assessments for learning" that allow students to self-assess mastery of the material and learning needs. **Firecracker quizzes are required and must be completed each weekend prior to 8 AM the following Monday.** You will receive an email reminder and link to the quiz directly from Firecracker. **All quizzes are mandatory and must be completed without collaboration or consulting resources** (e.g., textbooks, peers, notes, websites, etc.). Although they are formative, quizzes should be taken seriously. Any quiz not completed within the designated time will receive a score of 0. Quizzes are important opportunities for students to practice the self-assessment and responsibility for their own learning that are part of Professionalism and Practice Based Learning and Improvement. The results of the quizzes will be tracked as a measure of your progress and to help faculty connect students with resources that will help them succeed in the curriculum.

Grading

The FSU COM has adopted a pass/fail grading system, which is used in the curriculum for the first and second years (See [Student Handbook](#)). To achieve a grade of Pass in BMS 6042 (**Cardiovascular and Pulmonary Systems**) a student must earn a **minimum of 196 points as described in the table below**, including a **minimum of 90 points from the assessment categories**. The final grade of a student who accumulates 194 total points but has not achieved the minimum required number of points in any non-assessment category will be at the discretion of the course directors following discussion and any required remedial action:

Category	Criteria for points	Points	MINIMUM REQUIRED	MAXIMUM POSSIBLE	Total possible
ASSESSMENTS (Minimum total points required = 90)					
End of course exam average – includes midblock and final	Overall score of ≥ 75%	100 points	90	100	100
	Overall score 70-74.9%	90 points			
	Score < 70%	0 points			
NON-ASSESSMENT CATEGORIES (Minimum total points required = 100)					
Preceptor (3 visits)	Professionalism (on time, dress, etc.)	1 point each	2	3	106
	Log encounters on time	1 point each	2	3	
Weekly FC quiz	On-time submission and score ≥ 65%	1 point each	6	8	114
CLC (T or W, and special schedule Week 6)	On-time arrival	1 point each	8	9	141
	Professionalism	1 point each	8	9	
	Evidence of preparation (non-assessment weeks)	1 point each	8	9	
CS Small group (Tuesday AM)	On-time arrival	1 point each	7	8	165
	Evidence of preparation	1 point each	7	8	
	Participation/Professionalism	1 point each	8	8	
Basic science small groups <ul style="list-style-type: none"> • ACS & EKG 1/14 • Vasculitides 1/21 • Cardiac cases 1/28 • Pulmonary infection 2/11 • PICO 2/18 • Pulmonary cases 2/25 	On-time arrival	1 point each	16	18	183
	Evidence of preparation	1 point each			
	Participation/Professionalism	1 point each			
Required large group attendance sessions: <ul style="list-style-type: none"> • Spring orientation 1/6 • Clinical skills orientation 1/7 • SCP orientation 2/3 • Secondary data research 2/4 • Dyspnea 2/25 	On-time arrival	1 point each	4	5	188
	Participation/Professionalism	1 point each	5	5	193
Assignments					
Secondary data research #1: Asking and focusing the research question	On-time submission due 2/4 5 PM	1 point	2	2	195
	Adequate effort and timely resubmission <u>if requested</u>	1 point			
PICO assignment	On-time submission due 2/7 5 PM	1 point	3	4	199
	Adequate effort and timely resubmission <u>if requested</u>	2 points			
	Provide meaningful peer feedback via Canvas due February 10-14	1 point			
	On-time submission due 2/14 5 PM	1 point	2	2	201

Secondary data research #2: Data management	Adequate effort and timely resubmission <u>if requested</u>	1 point			
Secondary data research #3: Research abstract	On-time submission due 2/21 5 PM	1 point	2	3	207
	Adequate effort and timely resubmission <u>if requested</u>	2 points			
Interprofessional collaborative skills module: • Office Team Roles	Office based Team template timely submission due Friday of first Preceptor visit 11:59 PM	1 point	6	7	211
The consultative process • List of questions/concerns	On-time submission due date TBD	1 point			
The consultative process • On-line discussion	Adequate effort	1 point			
	Evidence of participation	1 point			
The consultative process • Shared summary	On-time submission of summary due date TBD	1 point			
	On-time submission due date TBD	1 point			
The consultative process • Reflection	On-time submission due date TBD	1 point			
Mid-semester self-evaluation	On-time submission 2/28 8 AM	1 point	1	1	212
Professionalism	General professionalism (includes failure to attend a required session without an excused absence in advance)	-1 point/event	9	10	222

1. An end of course exam average between 70% and 74.9% (90 points) is considered a “marginal” pass. Students in this category are encouraged to consult the academic counselors in Student Affairs as well as the course faculty for advice on study and test-taking skills. An end of course exam average < 70% (0 points) will receive a grade of fail* (see Grading Policy below), which will require remediation or repetition of the course, as proposed by the course directors and determined by decision of the Student Evaluation and Promotion Committee.
2. A student whose performance is <70% (below passing) on any individual exam (see above for definition of exam score) during the course is required to
 - a. Attend the exam review (in house exams),
 - b. Contact the course directors within 24 hours of that exam review, and
 - c. Meet with the course directors. Students may be asked to complete a Performance Improvement Program, the purpose of which is to assist the student in developing the skills and habits necessary to succeed in the curriculum as well as to address specific performance deficits.
3. Any quiz not completed by the Monday 8 AM deadline will earn 0 points.
4. Attendance and satisfactory participation are required in all small group sessions, all activities scheduled in the CLC, assigned labs, and other activities as determined by the course directors. Unexcused absence from an activity for which attendance is required may require remediation as determined by the course directors. Multiple unexcused absences from and/or late arrivals to required activities will be considered a Professionalism concern and may result in a [Report of Concern for Unprofessional Behavior](#) and referral of the student to the Student Evaluation and Promotions Committee in addition to loss of associated points..
5. Demonstration of the attitudes and behaviors of Medical Professionalism is expected at all times and in all aspects of the course, including adherence to the Honor Code when taking unproctored, on-line quizzes and observation of the dress code. Professionalism concerns may generate a [Report of Concern for Unprofessional Behavior](#).
6. Satisfactory completion and timely submission of all assignments including Preceptor patient logs and Interprofessional Collaborative Skills assignments, as determined by the course directors.

Pre-clerkship course grading policy – Year 1:

Course written exam score:

All quizzes are mandatory and must be completed without collaboration or consulting resources (e.g., textbooks, peers, notes, websites, etc.).

Course grade:

If the course average is <70%, a grade of **IR** will be recorded.

- For an M1 course, a student may attempt to remediate the grade during the summer, if approved by the Student Evaluation and Promotion Committee (SEPC). Remediation will be comprised of a modified course, as proposed by the course directors, and passing performance ($\geq 70\%$) on a customized NBME exam. The grade will convert to **Pass** or **Fail** at the end of the remediation block.
- If a student has IR grades in 2 or more M1 courses and the SEPC decision recommends repeating year 1, the IR grades will convert to Fail.

In courses that include an OSCE:

- OSCE score < 80%, if the course written exam score is Pass OR IR (see above) = **IR**

In courses that include Preceptorship (M1 Spring, M2 Fall)

- Unsatisfactory performance in Preceptorship, if the course written exam score is Pass OR IR = **IR**

Unsatisfactory Professionalism, if the course written exam score is Pass OR IR = **IR** or **Fail** depending on the nature of the Professionalism concern, as determined by the SEPC.

In any course in which the student's performance merits a grade of IR in 2 or more of the above categories (written exam score, OSCE, Preceptorship, Professionalism), the student will be referred to the SEPC, and a grade of Fail may be awarded, as determined by the SEPC.

Pre-clerkship course remediation policy – Year 1:

A student who has completed all the assessments and activities of a course and has not achieved a grade of Pass (see above), will be required to repeat the entire content of the course and demonstrate competence through an assessment which is consistent with the original course.

Remediation activities, including final testing, may involve other students.

Remediation should be comprised of a specific plan for learning and assessment such as the following:

- Review of course content available on Canvas
- Review of content through modified Firecracker tree identifying topics to be covered each week
- Completion of Firecracker weekly quizzes and practice test
- When a specific deficit is identified (e.g., pharmacology), completion of assignments determined by relevant content experts (e.g., paraphrasing, problem sets, case application, etc.)
- Weekly meetings with course directors and other faculty content experts as determined by the course directors to verify active engagement with content that is resulting in improved learning.
- A passing score ($> 70\%$) on a customized NBME exam (questions selected by the course directors and with a difficulty approximately equivalent to final exam average of the course) and additional faculty-written questions, if determined to be necessary by the course directors.

A student who scores < 70% on the final assessment or does not adequately engage in the remediation process (as monitored by the course directors) will receive a grade of Fail for the course.

Course Evaluation

Students will have the opportunity to provide constructive feedback through evaluation forms. Evaluations will include both content and facilitation/teaching. Feedback is encouraged at all times on all components of the course and will assist the block directors in providing a timely continuous quality improvement.

Policies

Americans with Disabilities Act

Candidates for the M.D. degree must be able to fully and promptly perform the essential functions in each of the following categories: Observation, Communication, Motor, Intellectual, and Behavioral/Social. However, it is recognized that degrees of ability vary widely between individuals. Individuals are encouraged to discuss their disabilities with the College of Medicine's [Director of Student Counseling Services](#) and the FSU Student Disability Resource Center to determine whether they might be eligible to receive accommodations needed in order to train and function effectively as a physician. The Florida State University College of Medicine is committed to enabling its students by any reasonable means or accommodations to complete the course of study leading to the medical degree.

[The Office of Student Counseling Services](#)

Medical Science Research Building, 2301

Phone: (850) 645-8256 Fax: (850) 645-9452

Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) bring a letter to the instructor indicating the need for accommodation and what type.

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

[Student Disability Resource Center](#)

874 Traditions Way

108 Student Services Building

Florida State University

Tallahassee, FL 32306-4167

Voice: (850) 644-9566

TDD: (850) 644-8504

sdrc@admin.fsu.edu

Academic Honor Code

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>)

Attendance Policy

The College of Medicine has detailed attendance policies as they relate to each cohort and events that conflict with course schedules. See the [FSU COM Student Handbook](#) for details of attendance policy, notice of absences and remediation.

Unexcused absence from a scheduled examination or quiz may result in a score of zero (0 %) being assigned for that assessment. Unexcused absence from an activity for which attendance is required (for example, Small Group session) may be considered as an issue of Professionalism. Any unexcused absence may require completion of the Performance Improvement Plan (see Grading section, above).

Clinical Learning Center (CLC) Specific Absence Policy

CLC scheduled activities

Students with a legitimate reason to miss a scheduled session in the CLC must request an approved absence through Student Affairs through the [online link](#). Students with approved absences will be allowed to reschedule or participate in a make-up session. **Unapproved absences may not be rescheduled or made up.** Repeated unapproved absences may result in a failing grade for the course and a [Report of Concern for Unprofessional Behavior](#).

If you know you will be absent from a scheduled CLC session, please complete the absence approval request at least two weeks in advance. For absences that are approved at least two weeks in advance, a change in CLC schedule assignment will be arranged.

One method for addressing a planned and approved absence is to identify a classmate willing to exchange scheduled sessions with you. In this situation, both students (the student with the approved absence and the willing classmate) should send a request via email to the [CLC Team](#) at least two weeks in advance. Students will be notified re: approval of these requests. Please note: Sending a request is NOT equivalent to receiving approval.

Unplanned but excusable absences from CLC sessions are absences due to circumstances *beyond the student's control*. Examples include student illness and/or family death. When such a situation occurs, please contact the [CLC Team](#) **as soon as possible**, to inform them that you will not be present. Then, submit an absence request to Student Affairs through the [online link](#). Student Affairs will classify the absence as excused or unexcused.

If the absence qualifies as an "excused" absence, the student must contact the [CLC Team](#) to develop a plan to make up the missed session. These sessions may require the presence of an SP and / or CLC faculty member. Any excused absence will not impact the student's grade.

Unexcused absences generally involve circumstances *within the student's control*. Examples of unexcused absences include the student who forgets about a scheduled CLC session, the student who skips the session to study, and/or any absence where an able student fails to contact Student Affairs and the [CLC Team](#) to inform them that the student will not be present for the session.

If the absence is unexcused, the clinical skills director will discuss the situation with the student. Any further unexcused absences will result in the notification of Student Affairs, a [Report of Concern for Unprofessional Behavior](#), and referral of the student to the Student Evaluation and Promotions Committee. Students with unexcused absence(s) will still be responsible for the missed material in future OSCE's and written examinations.

Objective Structured Clinical Examination (OSCE)

If a student knows he/she will not be able to participate in the OSCE, he/she should complete and submit the appropriate forms to Student Affairs, and, if within 24 hours of the time he/she is scheduled for the OSCE, contact the [CLC Team](#). If the absence is excused by Student Affairs, the student will receive an "I" (incomplete) grade and be required to complete a make-up OSCE at a designated time after the course has ended.

Any excused absence—whether planned or unplanned—will not impact the student's grade.

Any absence that does not qualify as an excused absence per Student Affairs is an unexcused absence. These generally are due to circumstances within the student's control. Examples of unexcused absences include the student who forgets about an OSCE session, the student who skips an OSCE to study for an exam and/or any absence where an able student fails to follow the procedures above if they are not able to participate in the OSCE. **An unexcused absence will result in failure of both the OSCE and the course.**

Preceptorship

Planned preceptorship absences require students to complete the proper forms and obtain the required permissions prior to the absence. **The student must submit a Request for Absence from Educational Activities through [Secure Apps](#), including the date of the rescheduled session. In addition, the student must inform the [Preceptor Team](#) of the session to be missed and the rescheduled date.**

Schedule changes or session remediation for planned preceptorship absences are negotiated in advance. It is the student's responsibility to arrange for a make-up session within one week of the missed session. The student will not incur a grading penalty for an approved absence, providing the session is completed by a schedule change or via remediation session.

Unplanned, but excused, preceptorship absences: In addition to requesting approval of an unplanned absence through [Secure Apps](#), students are expected to contact the [Preceptor Team](#) and the preceptor as soon as possible, with the goal of alerting the preceptor in advance that the

student will not be coming. This must be completed as soon as possible to avoid impacting successful completion of the preceptorship component of the course.

Impact of excused absence on the student's grade: Absence with a preceptor must be rescheduled as quickly as possible and notification of the rescheduled date completed via the intranet survey. The student will not incur a grading penalty for an excused absence, provided it is rescheduled or remediated.

Unexcused preceptorship absences: In addition to absences not approved by Student Affairs, an absence will be considered to be unexcused if an able student fails to contact the preceptor directly and in advance of the expected time of arrival to inform him/her that the student will not be at the preceptor's site that day.

Impact of unexcused absence on the student's grade: The student may not be allowed to reschedule the missed session and could receive a grade of fail for the course

Professional Attire

Professional attire consists of clothes consistent with community norms for physicians. Examples of these norms in Tallahassee are: no jeans, seductive, revealing or tight-fitting clothes, sheer or see-through fabrics, strapless, low-necked or midriff-baring clothes, shorts, sweats, hats, or open-toed shoes.

For men, professional attire consists of slacks, a collared shirt and dress or casual shoes (no sport shoes or sandals). Ties may be either required or forbidden in some clinical situations.

For women, professional attire consists of slacks or a conservative length dress or skirt with a blouse or sweater. Skirt edge should rise no higher than 2" above the top of the knee during all clinical care and training maneuvers and should not be tight-fitting. Heels more than 3" in height are never appropriate in clinical settings.

For both men and women, a white lab coat is required. On those occasions when students are examining each other, you will be informed of the appropriate apparel for that session.

Professional appearance: Long hair must be pulled back and secured. Facial hair must be neatly groomed. If possible, all tattoos should be covered by clothing. No visible body piercing except a single piercing in each ear. No large earrings or loose jewelry. Fingernails must be trimmed. If nail polish is worn, it should not be a distracting color. No strong perfume or other scented products. In compliance with OSHA regulations, closed-toed shoes are required in all clinical settings—including the CLC.

The established "norms" of certain clinical settings may modify these standards for professional attire, but any variations in professional attire must be approved by the student's supervisor. Consult your supervisor to clarify expectations for student attire in any ambiguous or new situations.