Human Systems in Health and Disease
BMS 6041
Host-Defense
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Overview

Course Goals

Host-Defense is the first course of the Human Systems in Health and Disease course sequence -- a study of the human functional systems that builds on the structure and function knowledge acquired in Foundations of Medicine 1: Organization and Structure and Foundations of Medicine 2: Molecules to Mechanisms. Host-Defense prepares students to study health and disease in specific systems through mastery of fundamental knowledge of the structure, function and diseases of the immune system, of infectious pathogens and processes, and of the two most basic mechanisms of human disease: inflammation and cancer. The course emphasizes concepts and integrates knowledge from traditional disciplines such as biochemistry, cell biology, histology, immunology, microbiology, pathology, pharmacology, and physiology in the context of clinical application. COM mission-based domains are underscored in specific objectives that address important host-defense issues in geriatric, rural and other underserved populations, such as the blunted immune response to vaccines in elderly patients. Concepts and knowledge acquired in Host-Defense are expanded in later courses. For example, the various functions of the white blood cells are presented in Host-Defense, and the pathobiology of these cells is further elaborated during the final systems block, Hematologic System. Knowledge of the underlying science is used to explain the clinical findings of inflammation, infection and cancer. In a similar way, students learn how to interpret the results of fundamental laboratory tests used to diagnose inflammatory, infectious, neoplastic and immune diseases. Students also begin to learn how to select appropriate additional tests in a cost-effective and evidence-based approach. Curricular themes such as cultural issues, ethics, and public health are developed as essential components in case studies – for example, attitudes, choice and personal vs community consequences of decisions related to vaccination – and in clinical encounters with standardized patients. Students completing Host-Defense will understand the structure and function of the immune system in health and disease and its impact on individuals, families, society, and the health care system. They will develop a strong appreciation of how immune cells can protect the host from infection and cancer, and how immunosuppression predisposes to it to these diseases. Students will also learn how, during the course of chronic inflammatory diseases, immune cells may cause collateral damage to the host and how the influence of tumor cells on immune cells may allow them to spread throughout the body. The block additionally covers the basics of pathogenicity of microbes and the drugs used to suppress immune responses (immunosuppressive) and treat infection (antibiotic), inflammation (anti-inflammatory) or cancer (antineoplastic). Mastery of these concepts will enable students to understand the pathogenesis of the most common groups of human diseases: infectious, inflammatory and neoplastic diseases as they impact the systems studied in the remaining blocks of Human Systems in Health and Disease sequence.

Learning Objectives

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

The global course objectives are:

1. Compare and contrast the structures and functions of the immune system cells (WBC) and organs (bone marrow, thymus, spleen, lymph nodes).
2. Compare and contrast the cellular mechanisms regulating genomic stability, cell growth, cell senescence and cell death.
3. Describe the cellular mechanisms involved in cancer invasion and metastasis and their relationship to immune system functions.
4. Compare and contrast the features of benign and malignant neoplasms and classify them using appropriate nomenclature.
5. Classify autoimmune inflammatory, infectious and neoplastic diseases according to their mechanism of pathogenesis.
6. Discuss the pathogenicity of the various types of microbes associated with infection, immunodeficiency, and cancer.
7. Demonstrate the ability to select, justify and interpret adequate laboratory or imaging tests to establish an appropriate diagnosis and support the treatment and management of autoimmune inflammatory, infectious and neoplastic diseases.
8. Interpret clinical presentations, including symptoms, signs and/or laboratory findings based on an understanding of the mechanisms of pathogenesis leading to autoimmune inflammatory, infectious and neoplastic diseases.
9. Explain the physiological and psychosocial aspects of disease progression associated with autoimmune inflammatory, infectious and neoplastic diseases.
10. Describe the appropriate prevention and management of autoimmune inflammatory, infectious and neoplastic diseases, including pharmacological and non-pharmacological approaches.
Course Format

Host-Defense 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. 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 and “flipped” 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.

Clinical Learning Sessions (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 maneuvers or problems associated with the specific system being studied in the block. They will often include reviews of prior organ systems and demonstrations of how systems intersect and impact one another.

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?)

Initial information about the PICO format was covered during Foundations of Medicine 2. During the Host-Defense block each student will develop a clinically relevant question, framed using the PICO format and submit the assignment via Canvas no later than 5:00 pm, Friday, November 2nd to receive feedback from your academic advisor, prior to the large group discussion. Supporting materials and suggestions about PICO questions are available with the assignment on Canvas.
CITI training modules (Collaborative Institutional Training Initiative: Protection of human subjects in research)

Time is reserved in the curriculum during the second half of the course for students to complete on-line training in the history, ethics and responsible conduct of human research. Completion of these modules is mandatory for all students. The training is completed on-line at times of your choice. **All required modules must be completed no later than 3 PM, Thursday, December 13th.** Whether or not you will do research while a medical student or during your residency, an understanding of the scientific and ethical principles of clinical and translational research is essential to all physicians and is an LCME required element of a general medical education (LCME Element 7.3). Information on accessing the modules can be found on the COM Human Subjects Research and Resources page. You will receive additional information about this learning activity from your course directors during the course.

Senior Mentor Program (attendance required)

Through participation in the **Senior Mentors Home Visits Program**, students learn about the biopsychosocial perspective of aging and develop skills in active listening and history taking. The activities and assignments of the Program occur throughout the Fall semester of Year 1 and contribute to the grade of both Fall courses: Molecules to Mechanisms and Host-Defense. The Senior Mentor Program pairs two (2) students with an independently-living older person in the community. Working as a team, the students visit with the assigned Senior Mentor 3 times during the semester. Each visit is associated with a set of objectives that develop an understanding of the importance of knowing a patient first as a person and how information on background, education, work history, belief systems, values, and personal needs contributes to that understanding. Following each visit, both team members complete and submit the appropriate assignment form. Completed assignments are discussed in small groups. Students are responsible to schedule their visits with their Senior Mentors to allow adequate time to complete and submit these written assignments **no later than the due dates: 10/1, 11/1 and 12/1.** The appropriate assignment forms are found on Canvas (the University Learning Management System). Note, the second and third Senior Mentor assignments are due during Host-Defense.

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, but requires a different set of learning skills. Important among those are integrity, 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.

### Course Objectives and Education Program Objectives

<table>
<thead>
<tr>
<th>Education Program Objectives</th>
<th>Course Objectives</th>
<th>Means of Assessment</th>
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<tbody>
<tr>
<td><strong>1</strong> PATIENT CARE: Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health</td>
<td>Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health</td>
<td>Faculty observation; peer and self-evaluation; Senior Mentor feedback</td>
</tr>
<tr>
<td>1.1 Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health</td>
<td></td>
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<tr>
<td>1.3 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</td>
<td>Demonstrate the ability to elicit an accurate and thorough medical history and physical examination appropriate for the patient's reason for visit</td>
<td>Faculty observation; small group and CLC exercises</td>
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<tr>
<td>1.4 Interpret laboratory data, imaging studies, and other tests required for the area of practice</td>
<td>Interpret laboratory findings based on an understanding of the structure and function of the immune cells and organs</td>
<td>Quizzes and exams</td>
</tr>
<tr>
<td>1.5 Counsel and educate patients and their families to empower them to participate in their care, showing consideration for their perspective throughout treatment</td>
<td>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</td>
<td>Faculty observation; small group and CLC exercises</td>
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<td><strong>2</strong> 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</td>
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<tr>
<td>2.2 Apply established and emerging bio-physical scientific principles fundamental to health care for patients and populations</td>
<td>Compare and contrast the structures and functions of the immune cells and organs (bone marrow, spleen, thymus, and lymph nodes)</td>
<td>Quizzes and exams; small group exercises</td>
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<td></td>
<td>Describe the mechanisms of the infectious and non-infectious inflammatory diseases, the mechanisms that control genomic integrity and cell growth and its failure during carcinogenesis</td>
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<tr>
<td></td>
<td>Explain the physiological aspects of disease progression for the immune disorders, infection, inflammation and cancer and describe their appropriate prevention and management, including pharmacological and non-pharmacological approaches</td>
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<tr>
<td>2.3 Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical</td>
<td>Interpret clinical presentations, including symptoms, signs and/or laboratory findings</td>
<td>Quizzes and exams; small group exercises; Faculty</td>
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<tr>
<td><strong>problem-solving, and other aspects of evidence-based health care</strong></td>
<td>based on an understanding of the structure and function of the immune cells and organs</td>
<td>observation in CLC</td>
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<td></td>
<td>Demonstrate the ability to select, justify, and interpret appropriate laboratory or imaging tests in order to establish the appropriate diagnosis and management of immunosuppression, infection, inflammation and cancer.</td>
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<tr>
<td></td>
<td>Explain the physiological aspects of disease progression for the immune disorders, infection, inflammation and cancer and describe their appropriate prevention and management, including pharmacological and non-pharmacological approaches</td>
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<tr>
<td><strong>2.5</strong></td>
<td><strong>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</strong></td>
<td>Explain the psychosocial aspects of disease progression for the immune disorders, infection, inflammation and cancer and describe their appropriate prevention and management, including non-pharmacological approaches</td>
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<tr>
<td></td>
<td>Quizzes and exams; small group exercises</td>
<td></td>
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<tr>
<td><strong>3</strong></td>
<td><strong>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</strong></td>
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<td><strong>3.1</strong></td>
<td><strong>Identify strengths, deficiencies, and limits in one’s knowledge and expertise</strong></td>
<td>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.</td>
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<tr>
<td></td>
<td>Faculty observation in large and small groups and CLC</td>
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<tr>
<td><strong>3.6</strong></td>
<td><strong>Locate, appraise, and assimilate evidence from scientific studies related to patients’ health problems</strong></td>
<td>Apply the principles and methods of Evidence-Based Medicine to acquire, appraise, and assimilate new clinical information to improve patient care</td>
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<tr>
<td></td>
<td>PICO exercise</td>
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<tr>
<td><strong>4</strong></td>
<td><strong>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</strong></td>
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<tr>
<td><strong>4.1</strong></td>
<td><strong>Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds</strong></td>
<td>Use accurate and appropriate vocabulary and concepts to communicate effectively with patients about health and disease.</td>
</tr>
<tr>
<td></td>
<td>Faculty observation, Senior Mentor assignments, small group and CLC exercises</td>
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<tr>
<td><strong>4.2</strong></td>
<td><strong>Communicate effectively with colleagues within one’s profession or specialty, other health professionals, and health related agencies</strong></td>
<td>Use accurate and appropriate vocabulary and concepts to communicate effectively with peers and faculty about health and disease.</td>
</tr>
<tr>
<td></td>
<td>Faculty observation, Senior Mentor assignments, small group and CLC exercises</td>
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<td><strong>4.6</strong></td>
<td><strong>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</strong></td>
<td>Communicate diagnostic information and reasoning, intervention options, and a suggested plan of care with truthfulness, sensitivity and empathy.</td>
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<tr>
<td></td>
<td>Faculty observation in small groups and CLC</td>
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<tr>
<td><strong>5</strong></td>
<td><strong>PROFESSIONALISM: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles</strong></td>
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<tr>
<td><strong>5.1</strong></td>
<td><strong>Demonstrate compassion, integrity, and respect for others</strong></td>
<td>Demonstrate respect, empathy, compassion, responsiveness and concern regardless of the patient's problems, personal characteristics.</td>
</tr>
<tr>
<td></td>
<td>Faculty observation, Senior Mentor assignments, small group and CLC exercises</td>
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</table>
Course Content

Content sequence in Host-Defense:
Throughout the 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.

Basic Immunology
- Immune cells and organs; structure and function
- Immune responses: Innate and Adaptive Immune Responses
- Interpretation of lab tests to assess immune function

Immunopathology (Diseases of the Immune System)
- Immunodeficiency
- Immune tolerance and Autoimmunity
- Inflammation
- Infection

Microbiology and Infectious Disease
- Pathophysiology of infection
- Molecular basis of pathogenesis
- Oncogenic viruses
- Epidemiology

Cancer
- Tumor Invasion and Metastasis
- Tumor immunology
- Clinical aspects of cancer

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

Basic and Clinical Pharmacology (Katzung)
Bates Guide to Physical Examination and History Taking
Behavioral Science in Medicine (Fadem)
Histology: A Text and Atlas With Correlated Cell and Molecular Biology (Ross)
How the Immune System Works (Sompayrac)
Physiology (Costanzo)
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)
Additional required readings will be assigned from a variety of sources. These readings will be provided to you and posted on Canvas when possible.

Additional 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

Assessment Methods

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 each assessment 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 ≥70% on all exam questions to pass the written examination component of the course. Students with a written exam average below 70% risk failing Host-Defense 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 pre-clerkship 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. The OSCE will provide students with feedback on their ability to perform an organized “head-to-toe” physical exam.

Students must score ≥ 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 next semester. An OSCE is part of the final assessment for Host-Defense. It will emphasize the medical interview and history. Students scoring below 80% who are unable to successfully remediate these deficits will receive a grade of “Fail” for Host-Defense and be referred to the Student Evaluation and Promotions Committee.

Quizzes
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; a quiz average ≥70% will contribute 2 points to the course exam average. 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 6041 (Host-Defense) a student must meet all of the following requirements:

1. A final exam average ≥ 70%. The mid-block assessment contributes 40% and the final assessment 60% to the final average. A quiz average ≥70% will contribute 2 points to the written exam score. If the course average is <70%, the final course grade will be
   - Fail when both of 2 written exams are <70%
   - IR when one of the written exams is <70% and one is ≥70%
   A grade of Fail or IR 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 during the course is required to
   a. Attend the exam review,
   b. Contact the block directors within 24 hours of that exam review, and
   c. Meet with the block directors.

3. Timely completion of all quizzes. Any quiz not completed within the designated time will receive a score of 0. A quiz average ≥70% will contribute 2 points to the course exam average.

4. A student who achieves an overall passing score (≥ 70%) but has demonstrated a significant deficit in one or more content areas will be required to develop and complete a Performance Improvement Plan in consultation with the block directors. The purpose of the Plan is to assure the student has the requisite knowledge base to succeed in subsequent courses in the curriculum.

5. A score ≥ 80% on the OSCE. Students who do not achieve a score of 80% or higher on the OSCE but who have successfully completed all other components of the course will receive a grade of Incomplete (I) for the course and must remediate these clinical skills. This remediation must be coordinated with the block directors and the CLC director, and must be completed prior to the beginning of the spring semester. Students scoring below 80% who are unable to successfully remediate will receive a grade of Fail for Host-Defense and will be referred to the Student Evaluation and Promotion Committee.

6. Attendance and satisfactory participation in all required sessions, all activities scheduled in the CLC, and other activities as determined by the block directors and clinical skills director. Unexcused absence from an activity for which attendance is required may require remediation as determined by the block directors and clinical skills director. 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 (see Student Handbook) and referral of the student to the Student Evaluation and Promotions Committee.

7. Demonstration of the attitudes and behaviors of Medical Professionalism in all aspects of the course, including adherence to the Honor Code when taking unproctored, on-line quizzes. Professionalism concerns may generate a Report of Concern for Unprofessional Behavior (see Student Handbook) and may result in receiving a grade of fail in the course.

8. Completion of all required CITI modules.

9. Satisfactory completion of all assignments, including the Senior Mentor Program home visits and assignments, as determined by the block directors.

**Preclerkship course grading policy**

In a course with 2 written exams:
- Failure (< 70%) of 2 written exams = Fail
- Course written exam score < 70%, including 1 exam failure (< 70%) = IR

In a course with only 1 written exam:
- Course written exam score < 70% = IR
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 Student Evaluation and Promotions Committee (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:**

A student who has completed all the assessments and activities of a course and has not achieved a passing score (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.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided.

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
University Attendance Policy:
Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

The College of Medicine has detailed attendance policies as they relate to each cohort and events that conflict with course schedules. See FSUCOM 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 Ms. Danforth 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 Ms. Danforth 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 Ms. Danforth 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 Ms. Danforth 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 formative 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 Ms. Danforth. 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 from the formative OSCE will result in a Report of Concern for Unprofessional Behavior.

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**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.