Clerkship Guidelines
Academic Year 2024-2025

BOSTON UNIVERSITY

Clerkship Guidelines

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Medical Education Program Objectives

A Boston University Chobanian & Avedisian School of Medicine graduate will be able to:		
INSTITUTIONAL LEARNING OBJECTIVES	MEDICAL EDUCATION PROGRAM OBJECTIVES	
Establish and maintain medical knowledge necessary for the care of patients (MK)	MK.1	Describe the normal development, structure, and function of the human body.
	MK.2	Recognize that a health condition may exist by differentiating normal physiology from pathophysiologic processes.
	MK.3	Describe the risk factors, structural and functional changes, and consequences of biopsychosocial pathology.
	MK.4	Select, justify, and interpret diagnostic tests and imaging.
	MK.5	Develop a management plan, incorporating risks and benefits, based on the mechanistic understanding of disease pathogenesis.
	MK.6	Articulate the pathophysiologic and pharmacologic rationales for the chosen therapy and expected outcomes.
	MK.7	Apply established and emerging principles of science to care for patients and promote health across populations.
	MK.8	Demonstrate knowledge of the biological, psychological, sociological, and behavioral changes in patients that are caused by or secondary to health inequities.
Demonstrate clinical skills and diagnostic reasoning needed for patient care (CSDR)	CSDR.1	Gather complete and hypothesis driven histories from patients, families, and electronic health records in an organized manner.
	CSDR.2	Conduct complete and hypothesis-driven physical exams interpreting abnormalities while maintaining patient comfort.
	CSDR.3	Develop and justify the differential diagnosis for clinical presentations by using disease and/or condition prevalence, pathophysiology, and pertinent positive and negative clinical findings.
	CSDR.4	Develop a management plan and provide an appropriate rationale.
	CSDR.5	Deliver an organized, clear and focused oral presentation.
	CSDR.6	Document patient encounters accurately, efficiently, and promptly including independent authorship for reporting of information, assessment, and plan.
	CSDR.7	Perform common procedures safely and correctly, including participating in informed consent, following universal precautions and sterile technique while attending to patient comfort.
	CSDR.8	Utilize electronic decision support tools and point-of-care resources to use the best available evidence to support and justify clinical reasoning.
	CSDR.9	Recognize explicit and implicit biases that can lead to diagnostic error and use mitigation strategies to reduce the impact of cognitive biases on decision making.
Effectively communicate with patients, families, colleagues and interprofessional team members (C)	C.1	Demonstrate the use of effective communication skills, patient-centered frameworks, and behavioral change techniques to achieve preventative, diagnostic, and therapeutic goals with patients.
	C.2	Clearly articulate the assessment, diagnostic rationale, and plan to patients and their caregivers.
	C.3	Effectively counsel and educate patients and their families.
	C.4	Communicate effectively with colleagues within one's profession and team, consultants, and other health professionals.
	C.5	Communicate one's role and responsibilities clearly to other health professionals.
	C.6	Demonstrate appropriate use of digital technology, including the EMR and telehealth, to effectively communicate and optimize decision making and treatment with patients, families and health care systems.

A Boston University Chobanian & Avedisian School of Medicine graduate will be able to:		
INSTITUTIONAL LEARNING OBJECTIVES	**MEDICAL EDUCATION PROGRAM OBJECTIVES**	
	C.7	Practice inclusive and culturally responsive spoken and written communication that helps patients, families, and health care teams ensure equitable patient care.
	C.8	Communicate information with patients, families, community members, and health team members with attention to health literacy, avoiding medical jargon and discipline-specific terminology.
	C.9	Communicate effectively with peers and in small groups demonstrating effective teaching and listening skills.
Practice relationship centered care to build therapeutic alliances with patients and caregivers (PCC)	PCC.1	Demonstrate sensitivity, honesty, compassion, and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
	PCC.2	Demonstrate humanism, compassion, empathy, integrity, and respect for patients and caregivers.
	PCC.3	Demonstrate a commitment to ethical principles pertaining to autonomy, confidentiality, justice, equity, and informed consent.
	PCC.4	Show responsiveness and accountability to patient needs that supersedes self-interest.
	PCC.5	Explore patient and family understanding of well-being, illness, concerns, values, and goals in order to develop goal-concordant treatment plans across settings of care.
Exhibit skills necessary for personal and professional development needed for the practice of medicine (PPD)	PPD.1	Recognize the need for additional help or supervision and seek it accordingly.
	PPD.2	Demonstrate trustworthiness that makes colleagues feel secure when responsible for the care of patients.
	PPD.3	Demonstrate awareness of one's own emotions, attitudes, and resilience/wellness strategies for managing stressors and uncertainty inherent to the practice of medicine.
Exhibit commitment and aptitude for life-long learning and continuing improvement (LL)	LL.1	Identify strengths, deficiencies, and limits in one's knowledge and expertise.
	LL.2	Develop goals and strategies to improve performance.
	LL.3	Develop and answer questions based on personal learning needs.
	LL.4	Actively seek feedback and opportunities to improve one's knowledge and skills.
	LL.5	Locate, appraise, and assimilate evidence from scientific studies related to patients' health.
	LL.6	Actively identify, analyze, and implement new knowledge, guidelines, standards, technologies, or services that have been demonstrated to improve patient outcomes.
Demonstrate knowledge of health care delivery and systems needed to provide optimal care to patients and populations (HS)	HS.1	Identify the many factors that influence health including structural and social determinants, disease prevention, and disability in the population.
	HS.2	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.
	HS.3	Demonstrate respect for the unique cultures, values, roles/responsibilities, and expertise of the interprofessional team and the impact these factors can have on health outcomes.
	HS.4	Work with the interprofessional team to coordinate patient care across healthcare systems and address the needs of patients.
	HS.5	Participate in continuous improvement in a clinical setting, utilizing a systematic and team-oriented approach to improve the quality and value of care for patients and populations.
	HS.6	Initiate safety interventions aimed at reducing patient harm.

A Boston University Chobanian & Avedisian School of Medicine graduate will be able to:		
INSTITUTIONAL LEARNING OBJECTIVES	MEDICAL EDUCATION PROGRAM OBJECTIVES	
	HS.7	Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care.
	HS.8	Integrate preventive interventions into the comprehensive health care of individuals.
	HS.9	Explain how different health care systems, programs and community organizations affect the health of neighborhoods and communities.
Exhibit commitment to promoting and advancing health equity for all patients (HE)	HE.1	Define health equity and describe the individual and population level differences in health outcomes and disease burden due to inequities in health care.
	HE.2	Comprehend the historical and current drivers of structural vulnerability, racism, sexism, oppression, and historical marginalization and how they create health inequity.
	HE.3	Explain how one's own identity, lived experiences, privileges, and biases influences their perspectives of colleagues, patients and clinical decision making.
	HE.4	Comprehend and identify the impact of health care inequities through medical decision making tools, interpreting medical literature and reviewing scientific research.
	HE.5	Identify factors needed to advocate for a more diverse and equitable healthcare environment at a local, community, and systems based level.

Third Year Learning Objectives

A third-year clerkship student will:

- Apply discipline specific knowledge within the context of clinical care (MK1-3)
- Gather an organized and hypothesis driven clinical history while being attentive to the patient's needs (CSDR-1)
- Perform a pertinent and accurate physical examination, accurately identifying any common abnormalities while demonstrating sensitivity to the patient. (CSDR-2)
- Analyze clinical data to formulate an assessment including a prioritized differential diagnosis supported by disease prevalence, pathophysiology, and relevant positive and negative clinical findings. (MK4-6, CSDR-3,4)
- Formulate an evidence based management plan that shows comprehension of the underlying disease process(CSDR 4)
- Deliver an accurate, well-structured, and synthesized oral presentations appropriate for the clinical setting.(CSDR-5)
- Document in the medical record in an accurate, organized and timely manner (CSDR-6)
- Communicate effectively with the interprofessional healthcare team (C4,5)
- Demonstrate an ability to perform common procedures safely and correctly, including participating in informed consent, following universal precautions and sterile technique while attending to patient comfort. (CSDR-7)
- Counsel and educate patients and families using patient-centered language that addresses patient concerns and clearly communicates plans of care. (C1-3, C7-8)
- Elicit feedback, communicate learning needs, demonstrate self-directed learning, and take opportunities to improve knowledge and skill gaps. (LL1-4, PPD-1)
- Treat all patients and team members with compassion, respect and empathy (PCC-1, 2)
- Display trustworthiness and an understanding of the responsibilities of a clinical student (PPD-2)

- Apply an understanding of the social and structural determinants of health to clinical care and initiate steps towards addressing the individual needs of patients (HE-1,2,4, MK-8)
- Use electronic decision support tools and point-of-care resources to apply the best available evidence in supporting and justifying clinical reasoning (CSDR-8, LL5-6).
- Practice inclusive and culturally responsive spoken and written communication that ensure equitable patient care (C7)

Pre-requisite knowledge and skills

Students must have completed the preclerkship curriculum and the Transitional Clerkship and have taken the Step-I exam prior to entering the core clerkship phase of the curriculum.

Site Maps

Site maps indicating the availability of student resources at our affiliate hospitals can be found under the Clinical Sites section of the Medical Education Office's Student Resources page at: https://www.bumc.bu.edu/camed/education/medical-education/student-resources/#siteinfo.

Schedules

Block schedule dates for all clerkships can be located on the Medical Education website: https://www.bumc.bu.edu/camed/education/medical-education/academic-calendars/

Holidays

Juneteenth: Wednesday, June 19, 2024
Thanksgiving: Wednesday, November 27, 2024 at 12PM – Sunday, December 1, 2024
Intersession: Monday, December 23, 2024 – Sunday, January 5, 2025
Other holidays that occur during specific blocks will be communicated by the clerkship director.

Holidays by Clerkship can be viewed on the Medical Education website at: https://www.bumc.bu.edu/camed/education/medical-education/academic-calendars/#clerkhols

Assessment and Grading

All core clerkships and selectives use the below grading structure. *See the clerkship specific materials for each clerkship's graded components.*

HOW MUCH EACH PART OF YOUR GRADE IS WORTH:	
Clinical Grade Percentage	
Shelf/Exam Percentage	25%
"Other" Components Percentage	
HOW YOUR FINAL WORD GRADE IS CALCULATED:	
Honors	
High Pass	
Pass	Numeric Score or between 1.50-2.49 in any domain on the final CSEF
Fail	Numeric Score or <1.50 on any domain on the final CSEF or < 2.00 averaged on the final CSEF (Clinical Fail)
HOW YOUR CLINICAL GRADE IS CALCULATED WITH THE CSEF:	
Clinical Honors	>4.45
Clinical High Pass	3.45-4.44
Clinical Pass	2.00-3.44
Clinical Fail	<2.00
SHELF/EXAM GRADING	
Exam minimum passing (percentile/2 digit score)	
What is "Other" and what percentage is it worth?	
Item	
Percentage	

Other components that need to be completed in order to pass the clerkship
Patient log
2 FOCuS Forms – 1 Interview Technique, 1 Physical Exam*   *Medicine Clerkship has a SOCS form and a Directly Observed H&P that replaces the FOCUS forms*

Standard Clerkship Clinical Grade Procedures/Policies

- Preceptors will provide clinical evaluations that contain the "raw data" on the student's clinical performance. Preceptors DO NOT determine the final "word" grade. You are encouraged to regularly ask for specific behaviorally-based feedback on your clinical skills from your preceptors. However, do not ask them what word grade you will get, as that is a multifactorial process of which the clinical evaluation is one component.

- The CSEF form will be used to numerically calculate your clinical grade: 1 to 5 points (depending on which box is checked) for each domain which will be averaged to give you a final score out of 5.   Categories: Needs intensive remediation (1); Needs directed coaching (2); Approaching competency (3); Competent (4) or Achieving behaviors beyond the 3rd year competency criteria (5) to get a final number in each domain. This can be rounded to the nearest number using standard rounding for the CSEF domain and this is the box that should be checked (e.g., if an average of 2.4 then the student should have needs directed coaching (2) checked off). Each CSEF will be weighted based on how long the student worked with each evaluator.

CSEF Clinical Grade Calculations should be made using the 0.01 decimal point in each domain (though the rounded number will be checked off on the final CSEF form) to give a final number.
    Any average of <1.50 in any domain = an automatic fail for the clerkship
    Any average of < 2.50 in any domain = an automatic pass for the clerkship and a meeting with the MEO for clinical coaching
    >2.50 in all domains, standard rounding will be used
        <2.00 = Clinical fail which will = a fail for the clerkship
        2.00-3.44 = Clinical pass
        3.45-4.44= Clinical high pass
        >4.45=Clinical honors
    The clinical grade will be reported in the CSEF final narrative

- The CSEF clinical score is converted to a final 2-digit percentage that is counted towards the final grade. For example, the final CSEF clinical score average of 4.45 would get converted to 90%. The Final CSEF percentage is used towards the final grade calculation, weighted as indicated in the table above as "Clinical grade percentage" (varies by clerkship).

- Primary preceptors at sites with multiple preceptors will collect evaluation data from the other clinicians with whom the student works. The primary preceptor will collate this data and submit the final clinical evaluation.

Clerkship Specific Clinical Grade Procedures/Policies

- The clinical grade will be worth x% of the final grade of the clerkship and will be calculated out of a 5-point scale from the CSEF
- The shelf is worth 25% of the final grade of the clerkship. The 2-digit score will be used to calculate the numeric score out of 100.

Professional Conduct and Expectations

Evaluation of a medical student's performance while on a clinical clerkship includes all expectations outlined in the syllabus and clerkship orientation as well as the student's professional conduct, ethical behavior, academic integrity, and interpersonal relationships with medical colleagues, department administrators, patients, and patients' families. Student expectations include those listed below in professional comportment sections. If there are multiple professionalism concerns through a clerkship or a student fails to meet the administrative expectations of a clerkship, the student will not be eligible to receive honors on the clerkship. A student will be given feedback prior to receiving their final grade for the clerkship if their professional conduct is of concern. Prior to receiving a final grade, if a

clerkship director determines that a student does not meet the professional conduct and expectations of the clerkship, a student will fail the clerkship. Any professionalism lapses resulting in either a clerkship fail or ineligibility to receive honors will require narrative comments by the clerkship director in the summative comments section of the final evaluation and the student will be given feedback in advance of the final grade form submission.

Shelf Exam Failure & Remediation

If a student fails their shelf exam, they will receive an Incomplete for the clerkship and retake the exam at the end of the year. Students :

- will not receive a Fail on their transcript if they pass the reexamination.
- will not be eligible for a final grade of honors - if the final grade calculation would earn the student honors, they will receive high pass as a final grade. Students would still be eligible to receive a clinical honors.
- If a student fails the reexamination, they will have Fail on their transcript, and have to remediate the clerkship.

Clerkship Failure & Remediation

If a student fails a third- or fourth-year clerkship, the student will receive a Fail grade and will be required to repeat the clerkship. The grade for the repeated clerkship will be calculated based on the grading criteria outlined in the syllabus for Pass, High Pass, or Honors independent of the prior Fail. The original Fail grade will remain on the transcript. The original summative evaluation narrative will be included in the MSPE, in addition to the summative evaluation from the repeated clerkship.

If a student fails the remediated clerkship again and the SEPC allows for another remediation, the grade for the repeat clerkship will still be calculated based on the grading criteria outlined in the course syllabus for (Pass, High Pass, or Honors). The original two failures will remain on the transcript. The repeated course will be listed again, and the word (Repeat) will appear next to both course names.

Grade Review Policy

The School's Grade Reconsideration Policy is located in the Policies and Procedures for Evaluation, Grading and Promotion of Chobanian & Avedisian School of Medicine MD Students:
https://www.bumc.bu.edu/camed/faculty/evaluation-grading-and-promotion-of-students/

AME/Kaiser Core Faculty Direct Observation

During the third year, students will be directly observed by their core AME (or Kaiser) faculty three times throughout the year. They will also submit one write up in their core AME/Kaiser faculty's discipline, and one video of a session with an SP for review and feedback. At the end of the year, the core AME/Kaiser faculty will write a narrative summary describing the student's growth trajectory and competency development in the observed domains. This narrative will be included as part of the End of Third Year Assessment (in addition to the EOTYA 6 station OSCE).

Formative Assessments

The purpose of formative assessment is to improve student learning by providing feedback on how well they are learning skills and content during the clerkship. Formative assessments are not included in the calculations of students' final grades. Each clerkship has required **FOCuS** (**F**eedback based on **O**bservation of **C**linical **U**ME **S**tudent) forms which must be completed by the mid/end of the clerkship. These forms will provide formative assessment through direct observation of CSEF behaviors. Each student is required to complete one interviewing technique and one physical exam FOCuS form on each clerkship.

In the Medicine Clerkship the FOCuS forms will be replaced by SOCs and a Directly Observed H&P.

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Formative Assessment and Feedback Policy

Boston University Chobanian & Avedisian School of Medicine ensures that each medical student is provided with formative assessment early enough during each required course or clerkship to allow sufficient time for remediation. Formative assessment occurs at least at the midpoint of each required course or clerkship four or more weeks in length.

Full Policy: https://www.bumc.bu.edu/camed/education/medical-education/policies/formative-assessment-and-feedback/

Mid-Clerkship Review

You and your clerkship director, site director or primary faculty/preceptor will complete the Mid-clerkship Evaluation form at the mid clerkship point.

The purpose of this evaluation is to give the student a chance to understand both their strengths as well as opportunities to improve. The feedback received at the mid-clerkship review is intended to allow the student to improve their clinical skills in real time.

Final Summative Assessments

The final summative assessment will be based on the clerkship grading policy and include a final narrative describing your overall grade, clinical grade, based on the CSEF (Clinical Student Evaluation Form), and other assessments, depending on the clerkship. The summative narrative must include a final summative statement regarding your professionalism on the clerkship (meet expectations or did not meet expectations) per the AAMC MSPE requirements. The final grade form summative narrative appears in your MSPE and is based on aggregate comments from your individual CSEFs and is written by a site director/clerkship director and is reviewed by the clerkship director before submission.

NBME Subject Examination

Students will take the NBME Subject Examination on the last Friday of the clerkship (unless otherwise communicated by the Medical Education Office). Students are given a reading day the day before the exam. Students do not report to their clerkship site on the reading day or the day of the exam. Students will be given 2 hours and 45 minutes to complete this exam. Shelf exam dates can be found in the 3rd year google calendar.

Remotely administered assessments

Students are responsible for ensuring that they meet any technical needs required for remotely administered assessments (e.g., NBME Shelf Exams, OCRAs). This includes, but is not limited to, ensuring:

- computer specifications meet requirements outlined on the Alumni Medical Library website: https://www.bumc.bu.edu/medlib/computing/busmrequirements/
- for NBME shelf exams, the student runs the laptop certification process noted below
- a consistent and stable internet connection
- a quiet testing space where the student will not be disturbed during assessment administration

Clerkships will reserve BUMC space as an onsite testing space for any remotely administered assessments. Students who do not have an appropriate testing space or prefer to test on campus should reach out to their clerkship coordinator at least two weeks prior to the assessment to make arrangements to test on campus.

Students with technical difficulties during a remotely administered assessment who do not take their assessment at a designated campus location will not be able to submit a grade reconsideration request solely for this reason.

Shelf Exam Laptop Certification Process

Students must certify their laptops one week before the NBME Subject Exam and again on the day before the exam. Instructions are provided on the Alumni Medical Library website at:
http://www.bumc.bu.edu/medlib/services/computing/nbme/

If a student has technical difficulties during a shelf exam, they must report this to the clerkship coordinator. The clerkship coordinator must inform the Medical Education Office, and the student is required to have their laptop evaluated by BUMC IT before their next shelf exam.
https://www.bumc.bu.edu/it/support/bumc-it/request/

Exam Policies
https://www.bumc.bu.edu/camed/education/medical-education/policies/exam-policies-for-medical-students/

Testing Center Policies
https://www.bumc.bu.edu/camed/education/medical-education/policies/l-11-testing-center/

Make-Up Exams

Students needing to make up the exam or remediate only the exam portion of the clerkship must contact the Clerkship Coordinator to arrange for a make-up/remediation date. **Students may not take a make-up or remediation exam during any block they currently have a scheduled rotation.** Make-up and remediation exams will typically be scheduled at the end of the third-year blocks between mid-May and early June.

Roles and Responsibilities

Each clerkship is directed by the School's Clerkship Director who oversees all clerkship sites. Each clinical site is directed by a clerkship site director who ensures that students are appropriately supervised and faculty and residents are prepared to teach at their site. Clerkships also have multiple clinical educators that have varying degrees of exposure to students. The responsibilities of the directors and coordinators are described below

more specifically. Clerkship directors are assisted by assistant clerkship directors, clerkship site directors, and clerkship coordinators.

School's Clerkship Director & Assistant Clerkship Director
- Oversees the clerkship curriculum's design, implementation, and administration
- Defines clerkship specific learning objectives and requirements
- Creates and maintains an appropriate learning environment, modeling respectful and professional behaviors for and toward students
- Ensures student and faculty access to appropriate resources for medical student education
- Orients students to the overall clerkship, including defining the levels of student responsibility requirements (i.e.., required diagnoses and procedures, direct observations, forms, feedback), grading structure and student schedule
- Oversees teaching methods (e.g., lectures, small groups, workshops, clinical skills sessions, and distance learning) to meet clerkship objectives
- Develops faculty involved in the clerkship and provides faculty development across sites specific to clerkship needs
- Evaluates and grades students
    - Develops and monitors assessment materials
    - Uses required methods for evaluation and grading
    - Assures timely mid-clerkship meetings at all sites with students
    - Ensures students receive timely and specific feedback on their performance
    - Submits final grade form for students via School of Medicine's evaluation system
- Evaluates clerkship, faculty, and programs via peer review and annual data from the Medical Education Office (MEO) and national organizations (AAMC, NBME, etc.)
- Supports each student's academic success and professional growth and development, including identifying students experiencing difficulties and providing timely feedback and resources
- Addresses any mistreatment and professionalism concerns in real time and communicate with MEO
- Participates in the school's clerkship Educational Quality Improvement and peer review processes with completion of action items
- Ensures LCME accreditation preparation and adherence
- Adheres to the AAMC-developed guidelines regarding Teacher-Learner Expectations

Overall Clerkship Coordinator
- Supports the clerkship director in their responsibilities above
- Creates and maintains an appropriate learning environment, modeling respectful and professional behaviors for and toward students
- Responds within one business day to student emails and questions
- Maintains student rosters and clinical schedules
- Coordinates orientations and didactic sessions
- Liaises with site directors and administrators to coordinate student experiences across all sites and timely collection of evaluations
- Verifies completion of clerkship requirements, including midpoint and final evaluations for each student, required diagnoses, and FOCuS forms
- Monitors students' reported work hours and report any work hours violations to the clerkship director
- Coordinates and proctors clerkship exams

Clerkship Site Director

- Oversees the clerkship curriculum and administration at the site
- Creates and maintains an appropriate learning environment, modeling respectful and professional behaviors for and toward students
- Is available and responsive to students' questions and concerns
- Ensures all faculty and residents teaching students are oriented to students' expectations, responsibilities, learning objectives, requirements, and assessments used in the clerkship
- Ensures student and faculty access to appropriate resources for medical student education
- Orients students to the clinical site when new students arrive at the site
- Reviews clerkship requirements and student expectations at site
    - Provides site specific information including, but not limited to, lockers, library, call rooms as applicable and required by LCME
    - Reviews site-specific schedule, discusses student role and responsibilities at site, supervision at site, and who to contact with questions and concerns
- Supervises students and ensures clerkship specific required observations are completed
- Meets with the student for the Mid-clerkship review
- Meets with the student for the final exit meeting
- Ensures timely and specific formative feedback based on direct observations
- Works with faculty and residents to delegate increasing levels of responsibility to students based on clerkship requirements
- Provides site didactics when applicable
- Recognizes students with academic or professionalism difficulties and communicates to Clerkship Director in a timely fashion
- Completes and ensures the accuracy of student evaluation forms, including formative and summative narratives for students at the site
    - Ensures collection of feedback and evaluation data from all physicians who work with each student by the end of the clerkship block to meet school's grading deadlines
    - Ensures that narrative data are consistent with and support numerical data
    - Evaluates students fairly, objectively, and consistently following medical school and clerkship rubrics and guidelines
- Addresses any student mistreatment concerns immediately and notifies the Clerkship Director
- Adheres to the AAMC Teacher-Learner Expectations guidelines
- Reviews site specific evaluations at mid-year and end of year and facilitates improvements based on data
- Works with School to provide faculty development for faculty and residents
- Answers Clerkship Director's questions or concerns regarding site evaluation or student concerns
- Participates in educational programming and meetings as requested by Clerkship Director or Assistant Dean for Affiliated Sites
- Adheres to LCME guidelines

Clerkship Site Coordinator

- Supports the clerkship site director in their responsibilities above

- Creates and maintains an appropriate learning environment, modeling respectful and professional behaviors for and toward students
- Responds within one business day to student emails and questions
- Sends out welcome email informing students where and when to arrive at least 72 hours before student start date
- Provides students with their contact information and remains available for questions and concerns during working days and hours
- Ensures students are oriented to clinics and hospital
- Obtains, tracks, and manages student rosters
- Obtains and maintains student information required by the site, as applicable
- Creates and distributes:
    - Student schedules to students, faculty, and staff before clerkship start date
    - Didactics/Presentation schedules, if applicable
- Schedules mid-clerkship evaluations; tracks and keeps record of completion and provides to overall Clerkship Coordinator
- Informs faculty and overall Clerkship Coordinator of student absences
- Arranges and schedules educational resources as applicable (e.g., SIM lab, EMR & Scrub training) and helps students troubleshoot
- Provides students with necessary documents and resources needed to be oriented to site
- Monitors and processes evaluations for distribution to faculty and residents
- Collects timely feedback from faculty for mid and end of clerkship evaluations to meet School's deadlines
- Collects feedback and evaluation data from all physicians who work with each student by end of clerkship block to meet School's grading deadlines
- Understands evaluation system and all site requirements
- Communicates site information changes (e.g., faculty, rotation details) to School's Clerkship Director and Clerkship Coordinator
- Maintains communication with Clerkship coordinator centrally and response within one business day
- Coordinates site specific meetings and faculty development with School

Primary Clinical Educators
- Sets and clearly communicates expectations to students
- Observes students' history taking and physical exam skills, and documents it on the FOCuS form
- Delegates increasing levels of responsibility to students based on clerkship requirements
- Maintains appropriate levels of supervision for students at site
- Creates and maintains an appropriate learning environment, modeling respectful and professional behaviors for and toward students
- Recognizes students with academic or professionalism difficulties and communicates to Clerkship Director in a timely fashion
- Gives students timely and specific formative feedback based on direct observations
- Assesses students objectively using School of Medicine's evaluation system
- Adheres to the AAMC Teacher-Learner Expectations guidelines

Supervision
Initially, the primary clinical faculty members should designate time to observe you performing: **history taking, focused physical exam, clinical problem-solving and interaction with patients and patient education.**

Once the supervisor establishes the student's level of confidence and competency, the student should be delegated increasing levels of responsibility in patient care, as appropriate. Although students may initiate a particular patient encounter on their own and without direct supervision, the faculty must at some point review the encounter with the student and inform the patient in-person that the student's assessment and management plan has been reviewed and approved by the faculty. The faculty is ultimately responsible for the evaluation, treatment, management, and documentation of patient care. If students have concerns regarding their clinical supervision, the site director and clerkship director should be immediately notified. Any supervision concerns should also be immediately submitted through the ATM link or directly to the Associate Dean of Medical Education.

Supervision and Delegating Increasing Levels of Responsibility

It is expected that the level of student responsibility and supervision will be commensurate with student's competency and level of confidence. When the student arrives to a new setting, a faculty may wish to observe you for the first session. Thereafter, you should begin to see patients on your own. In the outpatient setting, **the student should initially perform 4-5 focused visits <u>per day</u> in the first week, increasing to 6-12 thereafter. In the inpatient setting, the student should initially follow 1-2 patients and increased to 3-4 thereafter. This will vary slightly by clerkship.**   When a student feels that they are being asked to perform beyond their level of confidence or competency, it is the responsibility of the student to promptly inform the preceptor. It is then the preceptor's responsibility to constructively address the student's concerns and appropriately restructure the teaching encounter to address the student's learning needs.

<u>Under no circumstances should the following occur</u>:
- Patient leaves the office/hospital without having had a direct face-to-face encounter with clinical faculty/ supervising resident.
- Primary faculty gives "prior approval" for student to perform intervention (order labs, prescribe meds) without satisfactory review.
- Patient leaves office/hospital without being informed that assessment/ management plan has been directly reviewed and approved by the faculty.
- Learning in which a student is expected to perform an intervention or encounter without the prerequisite training and/or adequate supervision.
- Student note provides the only record of the visit. Although all faculty see all patients, faculty must document that <u>they </u>were actually the person responsible for seeing and examining the patient.

Intimate Exam Policy

Students participating in an intimate exam with a patient (which includes, pelvic, genitourinary and rectal exam) must have a chaperone with them, irrespective of the gender of the patient or the student. Permission to participate in an intimate exam must be obtained by the supervisor in advance of the examination itself. The patient has the right to decline student attendance at any examination.
If a student is unable to perform any intimate exam due to patient preference, the student's evaluation will not be impacted and if necessary, the clerkship director will provide an alternative experience.

Physical Exam Demonstrations

The demonstration of the physical examination on students should not be done by any supervisor of students including residents and attending faculty. Practicing the physical examination on students places them in a position where they may feel pressure to consent to something they may not feel comfortable with.

Third Year Student

Students are expected to adhere to BU's and Chobanian & Avedisian School of Medicine's policies, provided below in the [BU Policies and Student Support Services section](#).

Professional Comportment

Students are expected to adhere to the AAMC-developed guidelines regarding Teacher-Learner Expectations, located on the Policies page, under "Academic Policies and Information" (https://www.bumc.bu.edu/camed/files/2015/05/AAMC-Teacher-Learner-Expectations.pdf)

Students are expected to be aware of and follow the site expectations on professional comportment, including, but not limited to, dress code and the use of phones, pagers, and laptops. Students must arrive on time at their site and for any scheduled sessions. Any missed sessions and absences must adhere to the Attendance, Time Off, and Personal Days Policy.

Further, below are expectations for student professional conduct and behavior in the core clerkship curriculum. These include, but are not limited to:

- Treating and communicating with the clerkship team in a respectful manner.
- Engaging in the core curriculum and participating respectfully with peers and colleagues at all times.
- Arriving at clerkship didactic sessions on time and being present throughout sessions.
- Requesting faculty and resident evaluations in a timely manner.
- Reviewing and responding to e-mail requests in a timely manner.
- Returning borrowed clerkship materials on time.
- Handing in all assignments and clerkship documentation on time.
- Completing all logs and FOCuS forms by the clerkship specific deadline.
- Informing clerkship leadership and supervising faculty/residents of absences in advance of the absence.

Professional conduct will be reviewed at the mid-clerkship feedback session. Additionally, students will be given feedback prior to receiving their final grade when professionalism concerns are identified on the clerkship. If students are not meeting expectations for professional conduct and behavior in the clerkship or there are concerns, students will be made aware of the concerns noted by the clerkship directors, clerkship coordinator, faculty or residents.

Ethical Behavior for Examinations and Mandatory Sessions

- Refrain from any conversation with your peers during exams and as you leave the L-11 testing space (when applicable), including within the vending room and elevator waiting area, until you are on the elevator.
- Refrain from leaving your computer camera view at any point during the examination. Any time where a student cannot be viewed may result in failure of the examination.
- Don't seek or receive copies of the examinations
- Signing in classmates, or signing in yourself and not staying for mandatory sessions is considered cheating and violations will be referred to Medical Student Disciplinary Committee
- If you are aware of any violations of the ethical standards listed above, within the Student Disciplinary Code of Academic and Professional Conduct, or otherwise, report it to the Clerkship Director

Student Evaluation of the Clerkship

Student feedback is a highly valued, critical resource for helping us continually improve our curriculum. Evaluation of learning experiences is a requirement of the Liaison Committee on Medical Education. To ensure that we have a representative amount of data on our courses and clerkships, all students are expected to complete an evaluation via the School of Medicine's evaluation system, MedHub (https://bu.medhub.com/), for each of the courses/modules and their instructors. All evaluations are anonymous and aggregate data is only released to clerkship directors after grades have been submitted for the blocks. Please comment freely and honestly about your experience.

Blackboard

Students will have access to a Blackboard site for the clerkship. The site is listed under "My Courses" on your Blackboard landing page.

Students who have questions about the Blackboard site or find that they do not have access to the site should contact the Clerkship Coordinator for assistance.

Blackboard Learn: https://learn.bu.edu/

Patient Encounters/Case Logs

Across the third year, there are required patient encounters and procedures that must be logged whenever they are seen. To log the patient encounter, students must have participated in the history, physical exam, assessment and plan development of the patient.

Required Patient Encounters (The Core)

Each core clerkship has a list of patient encounters and procedures that students are required to see before the end of the rotation. Students should log every time they see any patient with the required patient encounter and continue to log throughout all clerkships.
The full list of encounters and the clerkship-specific lists are available at
https://www.bumc.bu.edu/camed/education/medical-education/faculty-resources/

Alternative Patient Encounters

If a student has not been able to experience all patient encounters required for the clerkship, students must address any gaps in their patient encounters through an alternative experience. Alternative experiences may be simulation, videos, etc., depending upon the clerkship requirement.

Patient Encounter Log

Students are expected to log their patient encounters in MedHub (https://bu.medhub.com/). Patient logs help the clerkship ensure that each student is seeing a diagnostically diverse patient population, an adequate number of patients, and performing a sufficient number of required procedures and diagnoses. Students must bring a printed copy of their patient encounter and procedure log to their mid rotation feedback meeting.

Learning Environment Expectations

Chobanian & Avedisian School of Medicine has a **ZERO** tolerance policy for medical student mistreatment. We expect students to be aware of the policy for appropriate treatment in medicine, including procedures for reporting mistreatment.

Learning more about the school's efforts to maintain and improve the learning environment at:
https://www.bumc.bu.edu/camed/education/medical-education/learning-environment/

Appropriate Treatment in Medicine

Students who have experienced or witnessed mistreatment are encouraged to report it using one of the following methods:

- Contact the chair of the Appropriate Treatment in Medicine Committee (ATM), Dr. Vincent Smith, MD, directly by email (vincent.smith@bmc.org)
- Submit an online Incident Report Form through the online reporting system https://www.bumc.bu.edu/camed/student-affairs/atm/report-an-incident-to-atm/

These reports are sent to the ATM chair directly. Complaints will be kept confidential and addressed quickly.

Appropriate Treatment in Medicine website: https://www.bumc.bu.edu/camed/student-affairs/atm/

Learning Environment Oversight (LEO)

The Learning Environment Oversight group was established in June 2022 and serves as a mechanism to monitor all aspects of the learning environment and report back to the school community on a regular basis. The group is comprised of representation from the Medical Education Office, Student Affairs Office, Appropriate Treatment in Medicine Committee, and students from all curricular years.

Student Support Services

Academic Enhancement Office

The Academic Enhancement Office (AEO) supports the academic and personal success of all medical students. Recognizing that individual students have different needs in order to be successful in medical school, various programs and services are available to all current medical students. Programs are designed to help students adjust to the rigors of medical school and strive to learn balance, with more effective study habits that promote and sustain lifelong learning. Through small group sessions and individual meetings, we work with students to leverage the necessary skills to balance academic and personal growth.
https://www.bumc.bu.edu/busm/student-affairs/office-of-academic-enhancement/

Tutoring

Peer tutors may be requested via the Academic Enhancement Office's Peer Tutoring Program at:
https://www.bumc.bu.edu/camed/student-affairs/office-of-academic-enhancement/academic-enhancement/peer-tutoring-program/

Disability & Access Services

Students who wish to request accommodations for learning at Chobanian & Avedisian School of Medicine can do so through Disability & Access Services. Information about the process is available on the Academic Enhancement Office's page: https://www.bumc.bu.edu/camed/student-affairs/office-of-academic-enhancement/accommodations-for-learning/

Disability & Access Services' goal is to provide services and support to ensure that students are able to access and participate in the opportunities available at Boston University. In keeping with this objective, students are

expected and encouraged to utilize the resources of Disability & Access Services to the degree they determine necessary. Although a significant degree of independence is expected of students, Disability & Access Services is available to assist should the need arise.
https://www.bu.edu/disability/accommodations/

General Student Policies

Policies and Procedures for Evaluation, Grading and Promotion of Students
This is a school-wide policy and can be located at: https://www.bumc.bu.edu/camed/faculty/evaluation-grading-and-promotion-of-students/

Early Identification and Feed Forward Policy
https://www.bumc.bu.edu/camed/education/medical-education/policies/early_identification_policy/

Medical Student Disciplinary Code of Academic and Professional Conduct
The School of Medicine expects all students to adhere to the high standards of behavior expected of physicians during all professional and patient care activities at the school and all of its academic affiliates. All students must uphold the standards of the medical profession. This includes, but is not limited to, being respectful of patients, staff, members of the faculty, their peers, and the community, being aware of the ways in which their conduct may affect others and conducting themselves with honesty and integrity in all interactions.

Students are also required to adhere to the highest standards of academic honesty and professional conduct in relation to their coursework.

https://www.bumc.bu.edu/camed/about/diversity/prs/medical-student-disciplinary-code/

Attendance Policies
On-site hours must be limited to 80 hours per week, averaged over a two-week period. Violations should be reported directly to the clerkship director or to an Associate Dean (Medical Education or Student Affairs). As part of becoming a professional, medical students should have the flexibility to address personal and professional needs at their discretion. In the clerkship year, as students transition to more of a professional work environment, they gain the responsibility of a working professional, yet do not have the agency to attend to their personal needs. As such, the Student Affairs Office and Medical Education Office have developed this personal day policy in conjunction with the clerkship directors for the core clerkship year. In addition to addressing issues of wellness and professional development, this policy will teach students the importance of time management and managing days off.

Time off requests must comply with the Attendance, Time Off, and Personal Days Policy.

- **Attendance, Time Off, and Personal Days Policy:**
  https://www.bumc.bu.edu/camed/education/medical-education/policies/attendance-time-off-policy/
  - **3rd Year Excused Absences & Personal Days Requests:**
    https://wwwapp.bumc.bu.edu/MedPersonalDays/home/Index
- **Work Hours:** https://www.bumc.bu.edu/camed/education/medical-education/policies/work-hours/

- **Jury Service:** http://www.bu.edu/dos/policies/lifebook/jury-service/
- **Religious Observance:** https://www.bu.edu/chapel/religion/religiouslifepolicies/
- **Weather Policy:** https://www.bumc.bu.edu/camed/education/medical-education/policies/weather-policy/

Clerkship Specific Restricted Dates

Students may not request a personal day that falls within a clerkship's restricted days. Clerkship-specific restricted days can be found on the Attendance, Time Off, and Personal Days Policy: https://www.bumc.bu.edu/camed/education/medical-education/policies/attendance-time-off-policy/#restricted

Scrubs Policy

https://www.bumc.bu.edu/camed/education/medical-education/policies/scrubs-policy/

Needle Sticks and Exposure Procedure

The needle sticks and exposure policy outlines the appropriate preventative measures and what to do in the case of unprotected exposure to body fluids. https://www.bumc.bu.edu/camed/student-affairs/additional-student-resources/needle-stickexposure/

Boston University Sexual Misconduct/Title IX Policy

This university-wide policy can be located at: http://www.bu.edu/safety/sexual-misconduct/title-ix-bu-policies/sexual-misconducttitle-ix-policy/

Boston University Social Media Guidelines

This university-wide policy can be located at: http://www.bu.edu/policies/information-security-home/social-media-guidelines/

Using Generative AI in Coursework Guidelines

With the increased use of Generative AI, Boston University's Faculty of Computing & Data Sciences has issued guidelines around use and attribution. https://www.bu.edu/cds-faculty/culture-community/conduct/gaia-policy/

School of Medicine Policies

In addition to the expectations listed above, all students are expected to adhere to Chobanian & Avedisian School of Medicine and Boston University policies. https://www.bumc.bu.edu/camed/education/medical-education/policies/

Instructional Tools

MedHub

Chobanian & Avedisian School of Medicine uses MedHub for evaluation and assessment. MedHub uses Single-Sign-On with BU accounts, and contains tutorial and training resources under the "Help" tab once logged in. Students with technical issues or in need of additional help beyond the resources provided should submit a support ticket via: https://www.bumc.bu.edu/evalue/medhub-support-tickets/

Echo360/Technology

Echo360 may only be used for streaming captured lecture videos; the videos may not be downloaded. Taking smartphone or digital pictures or videos of any part of the lecture in class, or at home, is similar to downloading and is not allowed. There are a number of reasons for this, including that students and/or the University may be liable for violations of federal copyright and privacy laws as a result of the use of copied material.

If you experience any technical problems, please report the issue in one of the following ways to generate an IT ticket:

- **Echo360 Related Issues:** Create a ticket on the Ed Media site (http://www.bumc.bu.edu/bumc-emc/instructional-services/echo360/): sign in and provide pertinent information that will enable an effective response. Have a link to the problematic video ready to copy/paste into this form.

- **Educational Technology Related Issues:** For assistance with technology supported by BUMC's Educational Media (e.g., ExamSoft), tickets can be created via their website at: http://www.bumc.bu.edu/bumc-emc/instructional-services/report-an-educational-technology-issue/

- **Other Technology Related Issues:** For assistance with BU-wide technology, such as Blackboard, email an example (e.g., picture or very brief phone video) to ithelp@bu.edu with a descriptive subject line and give as many details as possible on the what, where, how you are using the service and what type of computer, browser, etc. along with type of student (i.e. M3). Always include link(s) to or screen shots of where the issue is occurring.

- **School's Policy on Recordings:** https://www.bumc.bu.edu/camed/education/medical-education/policies/classroom-recordings/

Medicine Clerkship

Academic Year 2024-2025

Department of Internal Medicine
MS 302
2024 - 2025

Clerkship Director: Sonia Ananthakrishnan, MD
Clerkship Coordinator: TBD

Clerkship Learning Objectives
(Linked to Medical Education Program Objectives in parentheses)
By the end of the clerkship, each student will be able to

I. Demonstrate **professional and humanistic behavior in clinical and clerkship related responsibilities**:
    - Be present and punctual
    - Proactively clarify your role and responsibilities, and reliably respond to patient care needs
    - Appropriately identify your position as "Student" or "Student Doctor"
    - Maintain confidentiality
    - Be forthright and accept responsibility for errors
    - Ask for help appropriately
    - Build a therapeutic relationship through a respectful, empathic approach that **gains the trust of the patient**
        - Dress and behave in a way that promotes patient and team comfort, trust and confidence in you
    - Demonstrate that the interests of the patient guide your behavior by:
        - Working to meet the patient's needs – at times this means accepting personal inconvenience
        - Advocating for patient's needs – e.g., getting a test, consult or follow-up appointment

II. Develop productive, collaborative working relationships with other members of the health care **team** and system, effectively contribute to the provision of quality patient care, and work toward the **improvement of the systems of care**.

III. Use proper technique to perform an accurate, appropriately detailed and organized **history and physical examination** in an efficient and sensitive manner, with a special emphasis on the intermediate and advanced physical diagnosis skills involved in volume assessment, the cardiovascular exam and the chest/pulmonary exam.

IV. Communicate clinical information accurately and demonstrate your understanding of the patient's problems, through concise, convincing, well-organized **patient presentations, admission write-ups, progress notes, and handoffs** that are appropriately focused for the audience, purpose and time available for the communication.

V. **Identify and prioritize your patients' problems, formulate an appropriate differential diagnosis** and outline an approach to diagnosis and management that is supported by clinical data and sound reasoning.

VI. **Educate patients** about their conditions and partner with them to develop and implement a treatment plan.

VII. Perform the designated **procedures** with appropriate technical proficiency while demonstrating attention to the patient's needs and concerns, and describing a clear understanding of benefits/risks, indications/contraindications.

VIII.   Demonstrate a core foundation of **knowledge** (scientific, ethical, socio-cultural) guided by the course objectives that is necessary both to provide high quality patient care and to understand advances in medicine.

 IX.   **Identify and address your learning needs** (by asking questions and critically incorporating information from appropriate resources into the decision-making process) and effectively share this information with colleagues.

Solicit and probe for useful **feedback** and respond with **improved performance**

Contact Information
Clerkship Director

Sonia Ananthaktishnan
Telephone: (617) 358 - 3523
Email: Sonia.Ananthakrishnan@bmc.org
Pager: 4435
Office: Evans 122
Office Hours: Students may email to set up an appointment

Associate Clerkship Directors

Radha Govindraj, MD
Telephone: Please email to reach out
Email: Radha.Govindraj@bmc.org
Pager: 1808
Office: Crosstown 2111
Office Hours: Students may email to set up an appointment

Ricardo Cruz, MD
Telephone: Please email to reach out
Email: Ricardo.Cruz@bmc.org
Pager: 0338
Office: Crosstown, 2nd Floor
Office Hours: Students may email to set up an appointment

Katy Bockstall, MD
Telephone: Please email to reach out
Email: Katy.Bockstall@bmc.org
Pager: 2744
Office: Collamore Building, 703K
Office Hours: Students may email to set up an appointment

Interim Clerkship Coordinator Support

Alyssa Pace
Telephone: (617) 358 - 3524
Email: apace@bu.edu
Office: Evans 122
Office Hours: 9 AM – 4:30 PM

Clerkship Description

Focus of clerkship

The Medicine Clerkship is an 8-week experience designed to develop your ability to function as a caring, increasingly independent clinician while supervised on a multi-professional team. During the clerkship, you will learn clinical medicine while working side-by-side with teams of residents and/or faculty providing care to a cohort of inpatients. As your knowledge and skills grow, you will earn increasing patient care responsibility. This direct patient care experience is complemented by a unique enrichment in which you also work in small groups with a clerkship director and hone essential clinical skills (including intermediate-level communications skills, physical diagnosis, and clinical reasoning). Your education is supplemented with conferences that focus on core topics. The clerkship is divided into two mini-blocks of 4 weeks each, and most students spend time at 1 or 2 of our clinical sites.

The goal of the clerkship is to develop someone who we would want to care for our family members; a professional, highly caring clinician who is increasingly independent and knowledgeable, and who is a strong team member.

The Medicine Clerkship aims to:
- **Introduce you to the world of internal medicine**
- **Develop your skills as a clinician**
- **Enable you to become a contributing, collaborating team member**
- **Support your skills as a self-directed learner**

The Self-Directed Learner

We welcome you to the world of medicine, where growth in the body of knowledge is accelerating and evolving at an unprecedented pace. You must be engaged and take ownership of your learning to maximize your learning experience on this clerkship. The Medicine Clerkship builds upon the learner-centered approach and challenges you to be a self-directed, lifelong learner. The dynamic nature of learning while caring for patients requires that you **become adept at identifying your learning needs and acting upon them.** You will need to continually ask relevant questions, find credible, evidence-based responses, and integrate this information into patient care.

As a student, you will learn to be a flexible learner who employs a variety of appropriate resources ranging from textbooks and the medical literature to consultants, and one who solicits and responds effectively to feedback. The clerkship provides you with many opportunities to read in-depth, to become the "local expert" on your patients, to share your learning with your team, and to improve continuously.

Contributing, Collaborating Team Member

Medicine is team-based, requiring you to **work effectively with multiple health care providers from different disciplines and within a complex system**. The Clerkship challenges you to "identify your niche" from which to consistently contribute to both patient care and team learning, and to develop the habits and skill sets that will enable you to function effectively within and improve the systems in which our patients receive their care.

Becoming a Clinician

The **primary focus of the clerkship** is to increase your ability to function as a caring, increasingly independent clinician while supervised on a multidisciplinary team. A clinician in this setting is someone who addresses all

dimensions of patient care: communication, diagnosis, treatment, and healing. You will do so by growing into taking a central role in the care of assigned patients while also learning from other patients who are on your team.

Clerkship Changes Made Based on Feedback

- Didactics schedule- move from alternating Monday and Wednesday half day sessions to some full day sessions and a few half day sessions

- **4th year Student Chief program**
    - Student-led near-peer panel Q and A style at orientation
    - Student led didactics at mid-clerkship
    - Opportunity for 4th year student curriculum development
        New in Feb 2024- 4th year student chief led Oral Presentations didactic
- New ACDs at BMC, Katy Bockstall, Ricardo Cruz
- Continued/ongoing/iterative faculty and resident development in feedback and assessment at BMC and across sites
- Focused and ongoing Site Director Development and Associate Clerkship Director development around:
        Bedside teaching
        Presentation skills (written and oral)
        Clinical Reasoning, OCRA prep
        Assessment and Grading
        Sharing best practices/challenges at sites

IN process:
- Incorporation of use of medical interpreters to session on Inpatient Diabetes Management
- Simulation based training

Diversity, Equity, and Inclusion Initiatives

- New didactics on Patients with Incarcerated Status by Ricardo Cruz has been well-received.
- Continued didactics on Social disparities- incorporation of microaggression LIFT training
- Updates to session on Substance use disorder: individual perceptions on role of health, awareness of health care disparities, importance of meeting healthcare needs of underserved populations; awareness of gender/cultural biases .

IN process:
- Incorporation of use of medical interpreters to session on Inpatient Diabetes Management

Other Recent Changes to the Clerkship

- Updates on site tip sheets
    - Thanks to all our students who on an ongoing basis have provided feedback that allowed us to update these tip sheets for the prior academic year. Available to students prior to rotation.
- Updated site orientation slide decks available to students before clerkship, and new orientation videos
- Updates to didactics: Palpitations, ECG sessions 1 and 2,
- New didactics: Patients with Incarcerated Status; Congestive Heart Failure

Clerkship Sites

Berkshire Medical Center
725 North St., Pittsfield, MA 01201
Site Director: Steven Lamontagne, slamontagn@bhs1.org, (413) 447-2839
Site Administrator: Stephanie Wade, swade@bhs1.org, (413) 395-7879

Located in beautiful Berkshire County, Berkshire Medical Center is a 298-bed community teaching hospital. Berkshire Medical Center provides primary and specialized health care services to the people of Berkshire County and surrounding communities. Chobanian & Avedisian SOM students work alongside interns, residents, and attendings, and share experiences with students from the University of Massachusetts Medical School. Housing is provided, some conferences take place on-site, with opportunities to Zoom into BMC noon student didactics, and a car is required.

Beth Israel Deaconess Needham
148 Chestnut St., Needham, MA 02492
Site Director: Jonathan Goldman jdgoldma@bidmc.harvard.edu, (781) 453-6100
Site Administrator: Barbara Breslin bbreslin@bidneedham.org

Beth Israel Deaconess Needham is a 58-bed (including 7 ICU beds) community hospital. The inpatient service is staffed by attending hospitalists, who are internal medicine trained physicians specializing in the care of inpatients. This means that essentially 100% of your physician interactions will be with attending physicians, which will afford you a higher level of independence and autonomy. Another bonus at BI Needham is the open-ICU concept, where students will have the ability to observe and sometimes participate in the care of patients requiring ICU level care. There are opportunities to Zoom into BMC noon student didactics, and a car is helpful.

Beth Israel Deaconess Plymouth
275 Sandwich St., Plymouth, MA 02360
Site Director: Albana Mihali, albanabmihali@gmail.com
Site Administrator: MaryJo Donovan mjdovovan@bidplymouth.org

Beth Israel Deaconess Plymouth is a 150-bed community hospital that provides care to patients and communities on the South Shore and on Cape Cod. Students will work directly with hospitalists in the provision of care (with an opportunity for greater independence and autonomy) and get first-hand experience in an accountable care organization. There are opportunities to Zoom into BMC noon student didactics, and housing is provided.

Boston Medical Center
1 Boston Medical Center Place, Boston, MA 02118
Site Director: Sonia Ananthakrishnan, sonia.ananthakrishnan@bmc.org, (617) 358-3523
Site Administrator: Yulianna Santos, yusantos@bu.edu, (617) 358-3523

Boston Medical Center is a private, not-for-profit, 493-bed, academic medical center located in Boston's historic South End. An acute care, full-service hospital, BMC provides healthcare to a diverse patient

population, including vulnerable, inner-city residents. The primary teaching affiliate for Boston University School of Medicine, BMC is the largest safety net hospital in New England. Students work on teams composed of interns, residents, attendings, and fellows. Students rotate on the Medicine wards and the Medical Intensive Care Unit as part of their Medicine Clerkship. Didactics occur on noon on many weekdays.

Kaiser Permanente

250 Hospital Parkway, San Jose, CA 95119

Site Director:	Marina Dergun, Marina.X.Dergun@kp.org, (408) 972-4576
Associate Site Director:	Subbu Lakshmi, Subbu.Lakshmi@kp.org
Site Administrator:	Elizabeth Chua, Elizabeth.Chua@kp.org, (408) 972-4495
	Sandeep Tumber, Sandeep.X.Tumber@kp.org
	Sally Castro, Sally.M.Castro@kp.org

The Kaiser Permanente Regional Campus, Silicon Valley hosts 3rd year core clerkships up to one year in duration. It is an integrated program where student rotations occur at both Kaiser San Jose and Santa Clara Medical Centers; the Medicine Clerkship takes place at the San Jose campus. This clerkship program offers Boston University medical students an opportunity to train within the nonprofit integrated, managed care system that is often hailed as the health care model for the future. You work primarily with hospitalists (there are only rarely psychiatry or family medicine residents). Housing is provided, conferences take place on-site, and a car is required.

MetroWest Medical Center

115 Lincoln St., Framingham, MA 01702

Site Director:	Thomas Treadwell, Thomas.treadwell@mwmc.com
	Eric Chun, eric.chun@mwmc.com
Site Administrator:	Rhonda Carlson, Rhonda.Carlson@mwmc.com

MetroWest is a 300-bed community hospital in Framingham, MA. Students join teams composed of one attending/hospitalist, one resident, and one intern. Students attend didactics at MetroWest and there are sometimes opportunities to Zoom into BMC noon student didactics. A car is required.

Roger Williams Medical Center

825 Chalkstone Ave., Providence, RI 02908

Site Director:	Lidia Vognar, Lidia.Vognar@chartercare.org
Site Administrator:	Cathy Cardillo, ccardillo@chartercare.org

The medical service at Roger Williams Medical Center in Providence, RI boasts a blend of primary and tertiary care in an academic community hospital and is the site for the state's only bone marrow transplantation program. Students work alongside interns, residents and hospitalists to provide patient care. Students attend didactics at Roger Williams and there are opportunities to Zoom into BMC noon student didactics. Housing is provided.

St. Elizabeth's Medical Center

736 Cambridge St, Brighton, MA 02135

Site Director:	Paul Fallon, Paul.Fallon@steward.org
Site Administrator:	Binali Patel, Binali.Patel@steward.org

Founded in 1868, SEMC is located in Boston's Brighton neighborhood that provides a full range of medical specialties, including family medicine, cardiovascular care, women and infant's health, cancer care and

orthopedics. Steward Health Care has always been committed to championing the best in health care for patients in the communities where they live and work. Through this partnership, they are able to open access to academic-based, tertiary level care to patients in communities across Eastern Massachusetts and beyond. Students work alongside interns, residents and hospitalists to provide patient care.

West Roxbury VA (Boston VA Healthcare System)

1400 VFW Parkway, West Roxbury, MA 02132
Site Director: Richard Serrao, Richard.Serrao@va.gov, (857) 203-5056
Site Administrator: Laura Muckerheide, Laura.Muckerheide@va.gov, (857) 203-6942
                       Sarah Pinckney Sara.Pinckney@va.gov

The VA serves as a major teaching affiliate of Chobanian & Avedisian SOM, and trainees at the VA are exposed to a challenging and rewarding patient population characterized by a heavy burden of chronic illness, particularly cardiovascular and pulmonary diseases, and medical problems resulting from specific circumstances such as traumatic brain injury or spinal cord injury. The VA system also affords you the unique opportunity to experience a national-scope, single-payer, integrated health system. Students work on teams with interns, residents and attendings from both Boston Medical Center and Brigham and Women's Hospital, and attend didactics at the VA. A car is often necessary.

Clerkship Schedules

Didactic Schedule

Sample Didactics schedule demonstrating mix of full and half day sessions.

Block A Didactics Schedule					
Session Time	Day 1	Half Day	Half Day	Day 2	
	Room R107	Room L212	Room R103	Room L210	
	Weds, April 24	Weds, May 1st	Fri, May 10	Mon, May 20	
8:00 AM					
8:30 AM			"ECG Interpretation Pt. 2" Katy B.		
9:00 AM					
9:30 AM	Sonia A.				
10:00 AM			Student Report**		**Covered by Katy and Radha
10:30 AM	"Chest Pain"/"IPASS?" Radha G.			Ricardo C.	
11:00 AM			"Anemia" Lindsey H.		
11:30 AM					
12:00 PM	Lunch Break	Wellness Hour		Lunch Break	
12:30 PM					
1:00 PM	Student Report	"ECG Interpretation Pt. 1" Katy B.		Student Report	
1:30 PM					
2:00 PM	"In-Patient Withdrawal Management" Alyssa Peterkin			Sonia A.	
2:30 PM		Student Report			
3:00 PM					
3:30 PM	"The Approach to Fever and Antibiotics" Rich S.	Sonia A.			
4:00 PM					
4:30 PM					
5:00 PM					

Didactics will take place at Boston Medical Center. There are 1 full Didactic Days from 8 AM – 5 PM, varying times depending on sessions for the day as well as 1-2 Half Days. Med 1 Student Report will occur during didactics at BMC.

All conferences are available on ZOOM, thus students at sites other than BMC who cannot come to Boston due to far-off sites will have access to this education. All students within reasonable distance are expected to be in-person for these Didactic sessions on and are to be excused from clinical duties on those days (for half days starting at 1 pm, students are to be excused by 11-1130 AM to allow for travel time) to allow time for travel. Zoom conferencing is available and encouraged to access didactics in real-time. Videos of many BMC based didactics will be made available to students at all sites on Blackboard in order to complement didactic sessions at all other sites.

The IM Clerkship follows the **8 Week Schedule** below:

**Please note the 4th Friday will usually be a Didactic Session from 8 AM – 12 PM. If no didactics are scheduled then, students are expected to round in the morning as usual before their Wellness Afternoon. Any changes in the schedule will be communicated through the Medicine Clerkship's weekly email, the TWIM ("*This Week in Medicine*").

	Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
Week 1	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	ON
Week 2	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	OFF
Week 3	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	ON
Week 4	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC	Team 1: Site or BMC Round in AM **Wellness Afternoon**	OFF
Week 5	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	ON
Week 6	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	OFF
Week 7	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	Team 2: Site or BMC	OFF
Week 8	Team 2: Site or BMC	Team 2: Site or BMC	**Unofficial Reading Day** -Written OCRA 10 AM -Final Assessments (TBD)	**Reading Day**	MED SHELF	OFF

Daily Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
Pre-rounds 6:45-7:45	Pre-rounds 6:45-7:45	Pre-rounds 6:45-7:45	Pre-rounds 6:45-7:45	Pre-rounds 6:45-7:45
Work Rounds 7:45-11:00am	Work Rounds 7:45-11:00am	Work Rounds 7:45-11:00am	Work Rounds 7:45-11:00am	Work Rounds 7:45-11:00am
Wellness Hour 12-1pm	Wellness Hour 12-1pm	CREx/M&M Conference 12-1pm (Optional)	Wellness Hour 12-1pm	Department of Medicine Grand Rounds 12-1pm

Patient Care and/or Small Group Learning with your CD 1-5:30pm (2 x/week)	Patient Care and/or Small Group Learning with your CD 1-5:30pm (2 x/week)	Patient Care and/or Small Group Learning with your CD 2-5:30pm (2 x/week)	Patient Care and/or Small Group Learning with your CD 1-5:30pm (2 x/week)	(Optional) Patient Care and/or Small Group Learning with your CD 1-5:30pm (2 x/week)

- The actual times vary slightly by team, but the above schedule gives you a general idea
- On Weekends 1, 3 and 5: You will round with your team on either Saturday or Sunday (see Blackboard for general BMC team "rules" for which weekend day you may work, subject to change); expect to have 1 weekend day off on those weeks. They will be excused by 12pm or after rounds on the 4th Friday for a Wellness Afternoon. Students observe the same weekdays on and off as the Internal Medicine residents in order to maintain the integrity of the Medicine ward team, and for students to gain experience functioning on an inter-professional team. Thus, students will work many Monday Holidays.
- Students will generally have 2 (TWO) 4-week blocks on this clerkship (with exceptions around holiday seasons). The students have a wellness afternoon the 4th Friday afternoon starting at noon (or after rounds/didactics).
- Finally, students will complete their clinical responsibilities and be excused by 5 pm on the day prior to their reading days in week ~8 of the Medicine clerkship.

Clerkship Grading

HOW MUCH EACH PART OF YOUR GRADE IS WORTH:	
Clinical Grade Percentage	60%
Shelf/Exam Percentage	25%
"Other" Components Percentage: Additional Assessments	
OCRA: 1 Oral OCRA, 2 written OCRAs, 4% each	12%
Directly Observed FOCUSED H and P	3%
HOW YOUR FINAL WORD GRADE IS CALCULATED:	
Honors	≥ 90 Total Points (this includes CSEF, shelf, additional assessments,) AND average of ≥ 3 in all CSEF domains
High Pass	≥ 80 to <90 Total Points, AND average of ≥ 2.5 in all CSEF domains
Pass	≥ 75 to <80 Total Points or between 1.50-2.49 in any domain on the final CSEF
Fail	<75 Total Points or <1.50 on any domain on the final CSEF or < 2.00 averaged on the final CSEF (Clinical Fail)
HOW YOUR CLINICAL GRADE IS CALCULATED WITH THE CSEF:	
Clinical Honors	>4.45
Clinical High Pass	3.45-4.44
Clinical Pass	2.00-3.44
Clinical Fail	<2.00

SHELF/EXAM GRADING	
Exam minimum passing (percentile/2 digit score)	2-digit score of 58 that corresponds to 5th percentile national on subject exam
What is "Other" and what percentage is it worth?	
Observed Clinical Reasoning Assessment (OCRA)	12%
Directly observed FOCUSED H and P	3%
Professionalism	See below
Other components that need to be completed in order to pass the clerkship	
Patient log	
Medicine Structured Observations of Clinical Skills Cards (SOCS) *These SOCS Cards and a Directly Observed H&P replace the FOCUS forms*	
Standard Clerkship Clinical Grade Procedures/Policies	

- Preceptors will provide clinical evaluations that contain the "raw data" on the student's clinical performance. Preceptors DO NOT determine the final "word" grade. You are encouraged to regularly ask for specific behaviorally-based feedback on your clinical skills from your preceptors. However, do not ask them what word grade you will get, as that is a multifactorial process of which the clinical evaluation is one component.

- The CSEF form will be used to numerically calculate your clinical grade: 1 to 5 points (depending on which box is checked) for each domain which will be averaged to give you a final score out of 5. Categories: Needs intensive remediation (1); Needs directed coaching (2); Approaching competency (3); Competent (4) or Achieving behaviors beyond the 3rd year competency criteria (5) to get a final number in each domain. This can be rounded to the nearest number using standard rounding for the CSEF domain and this is the box that should be checked (e.g., if an average of 2.4 then the student should have needs directed coaching (2) checked off). Each CSEF will be weighted based on how long the student worked with each evaluator.

CSEF Clinical Grade Calculations should be made using the 0.01 decimal point in each domain (though the rounded number will be checked off on the final CSEF form) to give a final number.

  Any average of <1.50 in any domain = an automatic fail for the clerkship
  Any average of < 2.50 in any domain = an automatic pass for the clerkship and a meeting with the MEO for clinical coaching
  >2.50 in all domains, standard rounding will be used
      <2.00 = Clinical fail which will = a fail for the clerkship
      2.00-3.44 = Clinical pass
      3.45-4.44= Clinical high pass
      >4.45=Clinical honors
  The clinical grade will be reported in the CSEF final narrative

- The CSEF clinical score is converted to a final 2-digit percentage that is counted towards the final grade. For example, the final CSEF clinical score average of 4.45 would get converted to 90%. The Final CSEF percentage is used towards the final grade calculation, weighted as indicated in the table above as "Clinical grade percentage" (varies by clerkship).

- Primary preceptors at sites with multiple preceptors will collect evaluation data from the other clinicians with whom the student works. The primary preceptor will collate this data and submit the final clinical evaluation.

Clerkship Specific Clinical Grade Procedures/Policies

Guiding Principles- We strive to provide a grading system that is:
- Fairly applied- a system that we follow for <u>all</u> students.
- Transparent - students can clearly see the process by which the grade is derived.
- Discriminating- the HONORS grade represents a performance of true distinction.
- Based on your absolute performance. There is no 'curve' or fixed percentage about who can/cannot get HONORS.
- Performance –based- what the student does and is reported- not based on potential

The final CSEF score will be converted to a score out of 100 to generate the clinical grade (which would count towards 60% of the overall final grade). Clinical performance grade will be represented on the final grade form, regardless of final grade. Clinical performance grade may also be represented in the final narrative, formative or professionalism grade comments.

The CSEF grade is complemented by a narrative description on the MedHub form and by other observations conveyed by instructors (e.g., verbal or email comments). These may be used by the Clerkship Faculty to help determine the student's final CSEF score, if and when appropriate.

The Observed Clinical Reasoning Assessment (OCRA), including oral and written components, is graded by 1 core clerkship faculty (12% of final grade).

The Directly Observed Focused History and Physical Exam Assessment is graded by 1 core clerkship faculty (3% of final grade).

If the student scores > 5th percentile nationally on the initial attempt at the **NBME Shelf Exam**, they are assigned points for the NBME Shelf Exam component of the final grade in proportion to the 2-digit score. The higher the 2-digit score, the more points the student receives. The shelf points are used in the final grade calculation.

Integrating the Clinical Performance Score into the Final Grade
- To achieve an overall final grade of HONORS, the student must achieve $\geq$90 Total Points.
- To achieve an overall final grade of HIGH PASS, the student must achieve 80 to < 90 Total Points.
- To achieve an overall final grade of PASS, the student must achieve 75 to < 80 Total Points.

- The clinical numeric grade will be worth 60% of the final grade of the clerkship and will be calculated out of a 5-point scale from the CSEF.
- The shelf is worth 25% of the final grade of the clerkship. The 2-digit score will be used to calculate the numeric score out of 100.

Deriving the Final Composite Grade from the input. An example:
A. 60% ---Clinical evaluation---CSEF score converted to score of 80 out of 100 points. x 0.6
B. 25 % ---NBME shelf exam--- 84 points x .25
C. 15 % --- Other including averaged score of the Observed Clinical Reasoning Assessments (OCRA) and Directly Observed Focused H and P Assessment=87 x .15

(80) x 0.60 + (84) x 0.25 + (87) x .15= 48 + 21 + 13.1 = 82.1
This student's final (composite) grade for the clerkship is final grade HIGH PASS with a clinical grade HIGH PASS.

Professional Conduct and Expectations

Evaluation of a medical student's performance while on a clinical clerkship includes all expectations outlined in the syllabus and clerkship orientation as well as the student's professional conduct, ethical behavior, academic integrity, and interpersonal relationships with medical colleagues, department administrators, patients, and patients' families. Student expectations include those listed below in professional comportment sections. If there are multiple professionalism concerns through a clerkship or a student fails to meet the administrative expectations of a clerkship, the student will not be eligible to receive honors on the clerkship. A student will be given feedback prior to receiving their final grade for the clerkship if their professional conduct is of concern. Prior to receiving a final grade, if a clerkship director determines that a student does not meet the professional conduct and expectations of the clerkship, a student will fail the clerkship. Any professionalism lapses resulting in either a clerkship fail or ineligibility to receive honors will require narrative comments by the clerkship director in the summative comments section of the final evaluation and the student will be given feedback in advance of the final grade form submission.

Shelf Exam Failure & Remediation

If a student fails their shelf exam, they will receive an Incomplete for the clerkship and retake the exam at the end of the year. Students:

- will not receive a Fail on their transcript if they pass the reexamination.
- will not be eligible for a final grade of honors - if the final grade calculation would earn the student honors, they will receive high pass as a final grade. Students would still be eligible to receive a clinical honors.
- If a student fails the reexamination, they will have Fail on their transcript, and have to remediate the clerkship.

Clerkship Failure & Remediation

Fail Clinical - If the student fails the clinical portion of the clerkship (Numeric Score or <1.5 on any domain on the final CSEF or < 2 averaged on the final CSEF =Clinical Fail), or does not meet the standards for professionalism either clinically or within the core clerkship curriculum, the student will receive a fail overall and must retake the clerkship in its entirety.

Fail Observed Clinical Reasoning Assessment - If the student fails only the OCRA component, the student must repeat the OCRA. If the student fails a 2nd time, the student may fail the clerkship and have to retake the clerkship in its entirety.
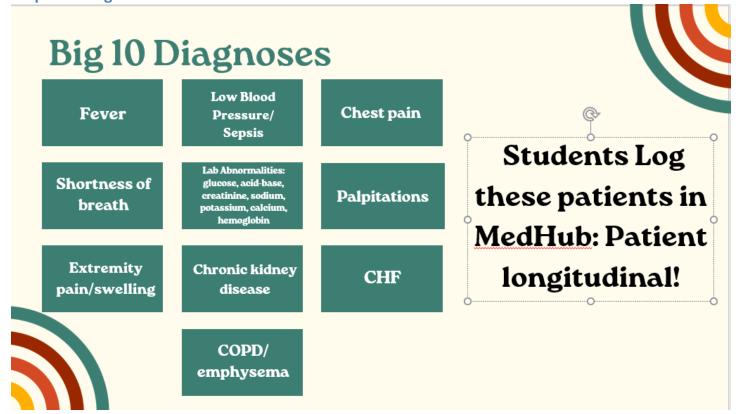
If a student fails a third- or fourth-year clerkship, the student will receive a Fail grade and will be required to repeat the clerkship. The grade for the repeated clerkship will be calculated based on the grading criteria outlined in the syllabus for Pass, High Pass, or Honors independent of the prior Fail. The original Fail grade will remain on the transcript. The original summative evaluation narrative will be included in the MSPE, in addition to the summative evaluation from the repeated clerkship.

If a student fails the remediated clerkship again and the SEPC allows for another remediation, the grade for the repeat clerkship will still be calculated based on the grading criteria outlined in the course syllabus for (Pass, High Pass, or Honors). The original two failures will remain on the transcript. The repeated course will be listed again, and the word (Repeat) will appear next to both course names.

Grade Review Policy

The School's Grade Reconsideration Policy is located in the Policies and Procedures for Evaluation, Grading and Promotion of Chobanian & Avedisian School of Medicine MD Students: https://www.bumc.bu.edu/camed/faculty/evaluation-grading-and-promotion-of-students/

Required Diagnoses

Big 10 Diagnoses

Fever

Low Blood Pressure/ Sepsis

Chest pain

Shortness of breath

Lab Abnormalities: glucose, acid-base, creatinine, sodium, potassium, calcium, hemoglobin

Palpitations

Extremity pain/swelling

Chronic kidney disease

CHF

COPD/ emphysema

Students Log these patients in MedHub: Patient longitudinal!

Formative Assessments (Medicine Clerkship Specific)

As stated above, the purpose of formative assessment is to improve student learning by providing feedback on how well they are learning skills and content during the clerkship. Formative assessments are not included in the calculations of students' final grades. Each clerkship has required **FOCuS** (**F**eedback based on **O**bservation of **C**linical **U**ME **S**tudent) forms which must be completed by the mid/end of the clerkship. These forms will provide formative assessment through direct observation of CSEF behaviors. Each student is required to complete one interviewing technique and one physical exam FOCuS form on each clerkship. **On the Medicine clerkship, the Directly Observed Focused H and P counts towards this requirement.**

In addition, the Medicine clerkship has specific direct observation cards (SOCS) to be filed for review at mid/end of clerkship. Again, these forms are more opportunity for the student to obtain feedback from direct observation of skills that are specific to Internal Medicine.

FOCUS Cards and Internal Medicine Structured Observations of Clinical Skills (SOCS): These exercises are designed to assist the student in obtaining ongoing, real-time feedback after being directly observed performing a variety of skills (interviewing a patient, performing physical exam skills including 1) JVP assessment, 3) Cardiac exam, 4) Pulmonary exam). These exercises will be student-initiated and completed on the wards by residents and attendings.

Two of these cards (SOCS) should be completed by the time of the mid-clerkship feedback sessions. The Internal Medicine SOCS cards will be turned in at the end of the rotation as part of the passport.

Neither the formative assessment exercises of FOCUS cards nor the Medicine SOCS cards are included in the numeric calculations of students' final grades. However, narrative comments or other observations from these direct observations may be included in the final grade.

Process for FOCUS and SOCS Forms
(Typically a 5-10 minute exercise)
1. Student initiates by speaking with observer (Resident, Attending or Fellow)
2. MD or student can identify patient
3. Hand observer the passport PRIOR to the patient encounter
4. Observation of encounter
5. Feedback on encounter
6. Observer and student sign card
7. Turn in FOCUS card and SOCS forms as part of the passport at the end of the clerkship

Clinical Problem Solving Cases (see individual case learning objectives)

Student Report These group discussions about real patients provide exposure to clinical problems commonly encountered in medicine. These will provide a good opportunity to practice clinical reasoning and the OCRA style of thinking for commonly encountered medical problems seen on the inpatient wards.

A mini-course on interpreting the ECG –Apply a systematic approach to interpret the EKG.

Small group sessions with your Clerkship Director. These sessions focus on refining core skills and building advanced skills in:
- Write-up and oral presentations→ ~2 writeups turned in/4 week block
- Bedside rounds→ Practice interview, exam skills with a particular focus on the CV exam, Chest/Pulmonary Exam, and Volume Assessment
- Clinical reasoning practice in case-based discussions
- Integrating the medical literature into patient care
- Skills: ECG, Simulation

Mid-Clerkship Feedback/Observed Clinical Reasoning Assessments
Key domains of clinical reasoning include information gathering, hypotheses generating, problem representation, differential diagnosis, identifying a leading diagnosis, providing justification, and developing a management plan.

This specific assessment of clinical reasoning highlights the domains of information gathering, identifying a leading diagnosis, providing justification and developing a basic management plan.

Objectives:
- For the clinical problem(s) addressed, generate a patient-specific differential diagnosis, obtain a focused history and physical that is relevant to the differential and develop initial steps to evaluate your differential
- Explain your reasoning and describe the most important and relevant pathophysiology for the condition(s)

- Identify the most useful diagnostic tests, and interpret their results
- Recommend initial treatment

These link to the following clerkship learning objectives:

IV.   Communicate clinical information accurately and demonstrate your understanding of the patient's problems, through concise, convincing, well-organized **patient presentations, admission write-ups, progress notes, and handoffs** that are appropriately focused for the audience, purpose and time available for the communication.

V.   **Identify and prioritize your patients' problems, formulate an appropriate differential diagnosis** and outline an approach to diagnosis and management that is supported by clinical data and sound reasoning.

VI.   Demonstrate a core foundation of **knowledge** (scientific, ethical, socio-cultural) guided by the course objectives that is necessary both to provide high quality patient care and to understand advances in medicine.

Process for the Observed Clinical Reasoning Assessment (OCRA)
- There is one oral OCRA (oral exam with 1 clerkship faculty, date and time TBA and will occur weeks 4-8) and 2 written OCRAs (30 minutes each, administered via Blackboard on the final Wednesday of the Medicine rotation.
- A list of students and their assigned date of the oral OCRA will be disseminated in advance. Assigned dates will be in weeks 4-8 of the clerkship.
- This formal evaluation will be done by core clerkship faculty.
- This evaluation will take place during the 4-8th week of the clerkship, unless extenuating circumstances do not allow.
- The **student will complete the observed oral assessment (1) and written assessments (2) on the dates and times provided by the clerkship.**
- The oral and written OCRAs will each be scored from 0-100 (based on a grading rubric). Each OCRA component (1 oral and 2 written exams) is weighted at 4% of the final grade. Thus the OCRA's 3 components (1 oral and 2 written) will in total be 12% of the final grade.
- Students will be asked to sign an honor code confirming that they will not share any information about the oral and written assessments with any fellow students. This includes the problems, diagnoses, details of the cases, or the questions they are asked.
- Failure to meet the expectations outlined above will result in a reduction in the student's score, and possible failure of the OCRA component.

Fail Observed Clinical Reasoning Assessment - If the student fails only the OCRA, the student must repeat the OCRA. If the student fails a 2nd time, the student may fail the clerkship and have to retake the clerkship in its entirety.

To best prepare for the OCRA: The OCRAs are based on the Medicine BIG 10. For each of the BIG 10 diagnoses in the Medicine clerkship (see Required Patient Encounters), the student should be able to define/describe:

- Illness scripts (IS) of the Medicine Big 10 problems/diagnoses- one way that experts store information (as chunks) about medical conditions in long term memory that enables them to store and readily retrieve that information
  - o An Illness Script includes:
    - Who gets the condition? What are predisposing factors
    - How does it present? Clinical manifestations- defining features
      - With regard to symptoms, signs, study results
      - Temporal aspects of the presentation- onset, course of the condition
      - Core pathophysiology
- Differential diagnosis of Medicine Big 10
- Evaluation/Diagnosis- which tests to order, when to order, how to interpret for disease related to the Medicine Big 10
- Initial management of Big 10 and related diagnoses
- Prognosis
- Prevention

Please see Blackboard for video providing specific instructions of Oral/Written OCRA (~7 mins in length).

Directly Observed FOCUSED H and P Assessment

Objectives linked to this assessment:
- Demonstrate use of patient-centered interviewing and communication techniques
- Take a clinical history that demonstrates both organization and clinical reasoning
- Perform accurate and relevant physical exam techniques
- Demonstrate a compassionate and patient-sensitive approach to history-taking and physical examinations
- Demonstrate a fund of knowledge in the clinical discipline and apply this to patient care

These link to the following clerkship learning objectives:

I. Use proper technique to perform an accurate, appropriately detailed and organized **history and physical examination** in an efficient and sensitive manner

Process for the Directly Observed Focused H and P Assessment
- Each student will be assigned a clerkship faculty who will contact them to set up a time to observe them take a brief, FOCUSED History and Physical Exam from a patient on the wards.
- This formal evaluation will be done by core clerkship faculty.
- This evaluation will take place during the 4th – 8th week of the clerkship, unless extenuating circumstances do not allow.
- The Focused H&P will be scored from 0-100 (based on a grading rubric) and will in total be 3% of the final grade.

- Failure to meet the expectations of this assessment will result in a reduction in the student's score, and possible failure of the Focused H&P component.

Fail Directly Observed Focused H and P Assessment - If the student fails only this component of the clerkship, the student must repeat the assessment. If the student fails a 2nd time, the student may fail the clerkship and have to retake the clerkship in its entirety.

To best prepare for the Directly Observed Focused H and P Assessment: Observe residents and faculty and get observed by residents and faculty interviewing and examining patients (use the FOCUS forms) during your Medicine Clerkship.

Assignments

1. Complete, sign (along with your observer) and turn in (as part of passport) Medicine Clerkship Structured Observation of Clinical Skills Cards (SOCS)
   a. JVP Exam
   b. Cardiac Exam
   c. Pulmonary Exam
2. Enter your assigned patients into the **MedHub patient encounter log** and ensure that you have seen and documented that you have seen the expected number ($\geq$ 15) and types of patients (Big 10). Provide a paper copy for your Clerkship Director/Adviser at your feedback meetings.
3. Complete the **Observed Clinical Reasoning Assessment** (oral and written) in weeks 4-8 of the clerkship. Dates/times to be assigned.
4. Complete the **Directly Observed Focused H and P Assessment** in weeks 4-8 of the clerkship. Date/time to be assigned.
5. Participate in the **mid-point feedback** sessions and sign the feedback form confirming completion.
6. Complete and review **Preceptor Log** with your CD. Additionally, submit the preceptor log (excel sheet) to Blackboard at the end of week 4 and week 8.
7. Complete MedHub and **Department of Medicine evaluation** of the clerkship and of your supervising residents and attendings.
8. Successfully complete the **Medicine Subject ("Shelf") Exam** on the final day of the clerkship.

**Optional but highly encouraged: Complete, sign (along with your observer and turn in (as part of passport) the following FOCuS forms: Interviewing and Data Gathering & Physical Exam

Recommended Texts
Textbook Reading Options
- Stern SDC. Cifu AS, Altkorn D. Symptom to Diagnosis. 4th edition. Lange Medical Books/McGraw-Hill. 2020. (BUSM Student Drive- IM folder)
- Step-Up to Medicine. 4th edition. Walters Kluwer. 2016. Read Ambulatory Medicine chapter! (BUSM Student Drive- IM folder)
- Internal Medicine Essentials for Clerkship Students. ACP/CDIM. American College of Physicians. 2015.
- Henderson MC et al. The patient history: An evidence-based approach to differential diagnosis. Lange. 2nd edition.

- Cecil Essentials

Many helpful resources are FREE on the Alumni Medical Library website:

- Symptom to Diagnosis: An Evidenced based guide. 4th Edition. Scott D.C. Stern, Adam S. Cifu, Diane Altkorn (BU Student Drive- IM folder)
- Harrison's Principles of Internal Medicine. 21st edition. Joseph Loscalzo, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, J. Larry Jameson
- Current Medical Diagnosis and Treatment 2022. Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow, Kenneth R. McQuaid

Other Helpful References
- POC
    - Uptodate (Plan)
    - Dynamed
    - MGH White Book
https://bugdrugdx.com/

Longitudinal learning
Clinical Problem Solvers (differential)
Schema
Illness Scripts
https://clinicalproblemsolving.com/resources/
Online Med Ed: BUSM Student Drive- M3 folder (not IM)

Reading and Other High Yield POC Resources
Calculators that prior students have mentioned are "must-haves" on this clerkship:
What are the chances your patient is having a VTE? (Venous Thromboembolism)- Calculate the Wells Score!
1. PE: https://www.mdcalc.com/calc/115/wells-criteria-pulmonary-embolism
2. DVT: https://www.mdcalc.com/calc/362/wells-criteria-dvt

For your patient with Afib- do they need anticoagulation? Assess their risk! CHADSVASC2:
https://www.mdcalc.com/calc/801/cha2ds2-vasc-score-atrial-fibrillation-stroke-risk

Are you evaluating a patient with chest pain? Use these to risk stratify your patient with chest pain, who MIGHT be having ACS!!
1. TIMI (for USA/NSTEMI): https://www.mdcalc.com/calc/111/timi-risk-score-ua-nstemi
Note- there is a different calculator for STEMI
2. Grace Score: https://www.mdcalc.com/calc/1099/grace-acs-risk-mortality-calculator

Need antibiotic recommendations?
Use the BMC intranet: https://hub.bmc.org/departments/pharmacy/inpatient-pharmacy/antibiotic-hiv-policies-and-guidelines-adults
(need to be on a hospital computer. To find this page manually- Go to BMC Intranet--> Departments--> Pharmacy--> Inpatient Pharmacy-->(left hand column) Antibiotic/HIV Guidelines--> (Scroll down to) Antibiotic Treatment Guidelines and Algorithms (and select your infection of choice)

IDSA website guidelines resource (want to know antibiotics for bacteremia? osteomyelitis? C Diff? check here...) https://www.idsociety.org/practice-guideline/alphabetical-guidelines/
Also consider: https://bugdrugdx.com/
Is the renal failure your patient is experiencing pre-renal or intra-renal or post-renal?
https://www.mdcalc.com/calc/60/fractional-excretion-sodium-fena

High Priority Conditions you should read about
In addition to the requirement that you see $\geq$ 15 patients as the primary student caring for the patient, and seeing patients with each of the "Big 10" active problems, **it is strongly recommended** that you care for real or simulated patients with or read about the conditions described below.

The Big 10 clinical presentations (above) and diagnoses listed below represent a listing of conditions that you should prioritize in your learning. It is not inclusive of all diagnoses/conditions to learn.

For each of the conditions listed below, the student should be able to define/describe:
- Illness script (IS)- one way that experts store information (as chunks) about medical conditions in long term memory that enables them to store and readily retrieve that information
    - An Illness Script includes:
        - Who gets the condition? Predisposing factors
        - How does it present? Clinical manifestations- defining,
            - With regard to symptoms, signs, study results
            - Temporal aspects of the presentation- onset, course of the condition
            - Core pathophysiology
    - Differential diagnosis
    - Evaluation/Diagnosis- which tests to order, when to order, how to interpret
    - Initial management
    - Prognosis
    - Prevention

Keep in mind that many conditions may present in several different ways (e.g. pulmonary embolus may present with chest pain, dyspnea, syncope). The listing that follows is designed to help you organize these conditions; the categories are not mutually exclusive.

High Priority "Diagnoses" and Problems- See as many as possible and read about these problems

Chest pain
- **Diagnostic Imperatives**
    - Acute coronary syndromes
    - Pulmonary embolism
    - Aortic dissection
    - Effort rupture of the esophagus (Boerhaave syndrome)
    - Tension pneumothorax
- **Common causes of isolated chest pain:**
    - Chronic coronary disease/angina

- o GI causes (esp. GERD, esophageal motility/spasm, peptic ulcer disease)
  - o Musculoskeletal (e.g., localized, non-rheumatologic syndromes like costochrondritis)
  - o Psychological causes/triggers (panic disorder, depression)
  - o Unexplained chest pain
- **Other**
  - o Pericarditis

Dyspnea
- COPD
- Heart failure
  - o Preserved ejection fraction
  - o Reduced ejection fraction

- Asthma
- Pneumonia
- Interstitial lung disease
- Pleural effusion

Fever
- Bacteremia
- Clostridium difficile
- Endocarditis
- HIV- primary infection and opportunistic infections/cancers suggested by CD 4 count
- Malaria
- Meningitis/encephalitis
- Noninfectious cause
- Pneumonia
- qSOFA/SIRS/Sepsis/Severe Sepsis, is this septic shock or not?
- Skin and soft tissue infections/cellulitis
- Spontaneous bacterial peritonitis
- Tuberculosis
- Urinary tract infection

Anemia
- Fe deficiency
- Anemia of chronic disease (inflammation)
- B12, folate deficiency
- Acute blood loss
- Glucose-6-Phosphatase deficiency –G6PD
- Thalassemias
- DIC- microangiopathic hemolytic anemias
- Sickle cell trait/disease

Kidney injury
- **Acute kidney injury**
  - Prerenal
    - Hypovolemia
    - Heart failure
    - Cirrhosis with ascites
  - Intrinsic renal
    - Glomerular disease
    - Acute tubular necrosis
    - Contrast nephropathy
    - Allergic interstitial nephritis
  - Post-renal causes

Acid-base/electrolyte disorders
- Acid-base
  - Metabolic acidosis
    - Increased anion gap conditions
    - Normal anion gap conditions
  - Metabolic alkalosis
    - Contraction
    - Vomiting
    - Renal acid loss
  - Respiratory acidosis
  - Respiratory alkalosis
- Electrolytes
  - Hyponatremia
    - Hypovolemia, osmotic diuresis
    - Diuretic induced
    - SIADH
    - Adrenal insufficiency
    - Edematous states – Heart failure, cirrhosis, nephrotic syndrome
    - Renal: Acute and chronic kidney disease

  - Hypernatremia
    - Unreplaced water loss -involves loss of thirst or ability to access water
    - Decreased total body water and sodium; relatively more TBW loss than sodium: GI loss, skin loss, renal loss (diuretics, osmotic diuresis)
    - Increased sodium with normal total body water: hypertonic saline, NaHCO3 administration, mineralocorticoid excess
  - Hypokalemia

- Reduced intake
- Increased entry into cells
- Increased GI loss
- Increased urinary loss
  - Diuretic
  - Mineralocorticoid excess
  - Hypomagnesemia

o Hyperkalemia
- Increased K intake: oral, IV (blood transfusion, IVF, TPN)
- Increased K release from cells
  - Pseudo-hypokalemia
  - Increased catabolism- tumor lysis
  - Metabolic acidosis
  - Drugs
  - Insulin deficiency (DM)
- Reduced urinary K excretion
  - Acute and chronic kidney disease
  - Reduced secretion or response to aldosterone (ACEI/ARBs and other drugs, type 4 RTA)

o Hypocalcemia
- Hypoparathyroidism
- Vitamin D deficiency
- Renal insufficiency
- Medications
- Hypomagnesemia

o Hypercalcemia
- PTH dependent: Hyperparathyroidism
- PTH independent:
  - Malignancy
  - Granulomatous disease- e.g. sarcoidosis
  - Medications – e.g., thiazides, Vitamin D intoxication, calcium

Other High Priority Conditions that do not fit neatly under one of the Big 10 categories
- Arrhythmia with emphasis on atrial fibrillation, supraventricular tachycardias, ventricular tachycardia, heart block
  - Understand causes of atrial fibrillation
- Diabetes- with emphasis on basic inpatient management of DM2, diabetic ketoacidosis, hyperosmotic hyperglycemic nonketotic state (HHNK)
- Hypertensive urgency/emergency
- Hypoxia- mechanisms, approach to…, common causes

- Substance abuse/overdose/withdrawal with emphasis on ethanol, opiates, cocaine
- Volume depletion

High priority components of the physical exam include:
- Cardiovascular
- Chest/Lung
- Volume assessment

Types of Patients/"Diagnoses"- The Next Tier
In addition to the requirements above, we encourage you to see and read about patients with as many of the following problems, clinical conditions, socio-demographics or learning opportunities listed below:
- Acute joint pain and swelling with emphasis on crystal-induced and infectious causes
- Abdominal pain- Approach to…
- Altered mental status - e.g. confusion, delirium, dementia
- Amyloidosis
- Cancer (common solid or blood-borne)- e.g. Lung, breast, colorectal, prostate, Chronic lymphocytic leukemia, multiple myeloma
- Cough
- Chronic kidney disease
- Diarrhea- Approach to… common causes
- Gastrointestinal bleed- peptic ulcer disease, portal hypertension
- Infections
  - Due to resistant organisms- e.g., staphylococcus
  - Antibiotic stewardship
  - Immunocompromised states
  - Nosocomial infections- including pneumonia, intravascular catheter infection
  - Liver Disease- emphasizing cirrhosis and its complications
  - Pain management- approach to …
  - Rash- approach to…
  - Sarcoidosis
  - Syncope- approach to… common causes
  - Systemic sclerosis (scleroderma)
  - Urinary tract infection- upper tract, complicated UTI
  - Valvular disease with emphasis on aortic stenosis, mitral regurgitation, tricuspid regurgitation

Session Learning Objectives and Notes

Clinical Problem Solving Cases, High Priority Reading & other Core Learning
These clinical problem solving cases span cases, workshops and didactics incorporated into the clinical clerkship.

Shelf Review with focus on evaluation of Acute Coronary Syndrome

By the end of the session, students will be able to:

- Review elements of the NBME Medicine shelf exam and the new NBME question format
- Estimate the probability that coronary artery disease is the cause of the patient's presentation with chest pain. Assess the current risk of ACS for the patient with chest pain.
- Describe the role of **stress testing** and cardiac catheterization in patients with suspected coronary heart disease

Evaluation of a patient with palpitations

By the end of the session, students will be able to:

- Generate differential diagnoses in a patient presenting with palpitations
- Recognize how age of patient helps to determine etiology of palpitations
- Recognize and list that multiple factors can contribute to palpitations in the same patient
- Review EKGs of patients presenting with palpitations

Dyspnea

By the end of the session, students will be able to:

- Formulate a differential diagnosis for acute dyspnea
- Identify the symptoms and signs of heart failure (HF)
- Distinguish between heart failure due to systolic vs diastolic dysfunction
- Identify a patient's cardiac functional status (class) and explain its significance
- Provide a prognosis for a patient with HF and identify data that predicts risk
- Articulate the principles of managing a patient with HF and describe the role of the different medication classes used to treat this disorder

Anticoagulation in the Hospitalized patient

By the end of the session, students will be able to:

- **Identify** risk factors for development of thrombosis in hospitalized patients
- **Assess** the risk of thrombotic disease
- Learn strategies to **prevent** major thrombotic events
  - o DVT Prophylaxis
  - o Bridging anticoagulation
- **Treat**ment – Familiarize yourself with common pharmacotherapy in anticoagulation
- Understand that various factors determine choice of anticoagulation

Rough Breathing in Exam Room

By the end of the session, students will be able to:

- Define Chronic Obstructive Pulmonary Disease (COPD)
- Distinguish among Emphysema, Chronic Bronchitis and Asthma
- Describe the pathogenesis of airflow obstruction in COPD
- Appropriately order and interpret pulmonary function tests (PFT's)
- Describe the principles of managing COPD, both during an acute exacerbation and at times of symptomatic but stable disease
- Identify smoking and other causes in patients with COPD

- Develop an approach to address and assist a patient in stopping smoking

Diabetes: Inpatient and Outpatient DM2
By the end of the session, students will be able to:
- Correctly apply the diagnostic criteria for type 2 diabetes mellitus to a patient
- Describe methods and reasons for controlling blood glucose inpatient vs. outpatient
- Identify the components of a routine evaluation of a diabetic patient
- Identify inpatient interventions to control hyperglycemia

Identifying and treating the source: Pattern recognition in infectious diseases syndromes and antimicrobials: a high yield approach.
By the end of the session, students will be able to:
- Review the distinction between commensals/colonizers/normal flora and pathogenicity
- Understand the general spectrum of antimicrobials used in the inpatient and outpatient setting
- Identify the core "illness scripts" for each primary source for infections (i.e. pulmonary-Pneumonia, CNS, skin/musculoskeletal, etc.) based on demographics, HPI, physical exam and ancillary data and predict the organism and treatment options
- Review representative presentations of fever within the context of each organ source and appreciate the nuances of subtle changes in presentation to identify the etiology and treatment.

Fever and Confusion with Cirrhosis
By the end of the session, students will be able to:
- Identify and recognize the findings of advanced liver disease
- Recognize complications of chronic liver disease
- Assess the prognosis of a patient with chronic liver disease
- In a patient who presents with a change in mental status, demonstrate a mental status assessment, characterize the problem (e.g. delirium, dementia…), develop a differential diagnosis and outline an approach to evaluation
- For a patient with ascites, describe maneuvers to elicit this finding, develop a differential diagnosis for the ascites, and determine the likely cause, by utilizing findings from the history, exam and paracentesis
- Describe the spectrum of alcohol withdrawal and identify factors that put a patient at high risk for major alcohol withdrawal
- Risk stratify a patient regarding risk for alcohol withdrawal and outline initial management

In-Patient Withdrawal Management
By the end of the session, students will be able to:
- Describe withdrawal management for the most commonly used substances
- Explain the importance of inpatient withdrawal management
- Review pathophysiology of withdrawal

Pain Management and End of Life Issues

By the end of the session, students will be able to:
- Describe an approach to alleviate pain and suffering for a patient with metastatic cancer
- Demonstrate how to safely and effectively employ commonly –used medications in the treatment of mild, moderate, and severe pain
- Discuss options of care we can offer patients and their families at the end of life
- Define palliative care and hospice, and identify situations in which these approaches to care are appropriate

Social Determinants of Health

By the end of the session, students will be able to:
- Develop tools to analyze the effect of SDOH on the wards
- Develop tools to see the way SDOH affect us as healthcare practitioners
- Develop micro-aggressions response techniques

Handoffs

By the end of the session, students will be able to:
- Understand the importance of structured communication when handing off patients
- Define the components of the IPASS mnemonic
- Critically construct and observe a verbal IPASS handoff

Abnormal LFTS

By the end of the session, students will be able to:
- Develop a differential diagnosis for the following LFTs patterns:
  - Severely elevated transaminases
  - Severely elevated alkaline phosphatase
  - Mild-moderately elevated transaminases
- Assess the severity of liver dysfunction using clinical, exam, and laboratory features.

Student Report

By the end of the session, students will be able to:
- For the clinical problem(s) addressed, obtain a focused history and physical, generate a patient-specific differential diagnosis, develop initial steps to evaluate your differential, explain your reasoning and describe the most important and relevant pathophysiology for the condition(s)
- Identify the most useful diagnostic tests, describe the utility and limitations of these diagnostic tests, and interpret their results
- Recommend initial treatment
- Identify the most important components of the context of care including: patient socio-demographics, language, culture, patient belief system and illness behavior, and the system of care (e.g. access to care, finances, care coordination)
- Describe how these factors impact patient care and clinical outcomes, and how the system might be improved or the problem prevented
- Practice the above skill in an OCRA style format, to help prepare for OCRA final assessments

Intravenous Fluids

By the end of <u>the session</u>**,** students will be able to:
- Identify the physiology of use of hypotonic vs isotonic solution
- Describe the differences between balanced crystalloids and isotonic saline
- Describe the treatment of a hypovolemic patient
- Describe the treatment of a hypovolemic patient with a severe metabolic acidosis
- Describe the treatment of an NPO patient
- Describe the treatment of a hypovolemic and hypernatremic patient
- Describe the treatment of a hypervolemic and hypernatremic patient

ECG Interpretation Sessions

By the end of <u>the session</u>**,** students will be able to:
- Apply a systematic approach to interpret the EKG
- Begin to recognize common and "can't miss" EKG diagnoses

CD-Student Small Group Sessions

By the end of <u>the session</u>**,** students will be able to **(your small group sessions will cover <u>some</u> of these objectives):**
- **Bedside skills**
  - Demonstrate a focused approach to obtaining a history and performing a physical exam, based on differential diagnosis
  - Demonstrate the method and be able to provide an estimate of the patient's JVP
  - Distinguish systolic ejection murmurs from regurgitant murmurs
  - Perform a systematic CV exam using proper technique
  - Demonstrate a systematic chest/pulmonary exam and detect abnormalities
  - Describe the elements from the history, physical exam and foundational studies that will enable you to assess the patient's volume status
- **Communication skills**
  - Practice delivering a concise, targeted, coherent oral patient presentation that "makes the case" for your assessment and plan
  - Practice composing a well-organized and coherent write-up that 'makes the case' for your assessment and plan
- **Clinical Reasoning Practice**
  - Provide a differential diagnosis and support for your proposed conditions that is appropriate to the patient being presented
  - Identify the common and "don't miss" (diagnostic imperatives) conditions associated with presentations of Chest pain, Dyspnea, Fever, Anemia, Acute Kidney Injury and common Acid-base & Electrolyte disorders
  - Describe the illness scripts for common and 'don't miss' conditions that often present with: Chest Pain, Dyspnea, Fever, Anemia, Acute Kidney Injury and common Acid-base & Electrolyte disorders and how they differ

- o Critically incorporate the relevant evidence (science/medical literature) into your patient assessments
- **Expectations, Feedback and Assessment review**
  - o Demonstrate the ability to effectively solicit and incorporate feedback from your supervisors and improve your current performance
  - o Discuss and reflect on feedback and assessments from your supervisors and work on a plan to incorporate feedback received
  - o Show the actions of a self-directed learner