



Course No.:	OM 7020, 7021	Course Title: IM1 and IM2	Internal Medicine Clerkship
Credit Hours:	4 weeks, 4 Credit Hours for each Rotation	Clerkship Directors:	Nishita Patel, MD, Vice-Chair Emmanuel Katsaros DO, Chair
Term - Dates:	Academic Year 2021-2022	Level:	OMS III

Educational Goal

OM 7020 Internal Medicine I (IM 1) (4 credit hours)

This course provides supervised clinical education in general internal medicine including clinical management, technical and procedural skills, interpretation of diagnostic data, patient education, development of diagnostic and management plans, and interprofessional communication. In subsequent courses in this series, students are exposed to progressive involvement and independence in patient management.

OM 7021 Internal Medicine II (IM2) (4 credit hours)

Continuation of OM 7020.262

Preparing for the Rotation

1. View the online plenary/orientation presentation.
2. Look at emails and Elentra for schedules and instructions daily
3. Read ahead on common presentations and conditions for patients admitted to the hospital. Take notes to make them quickly available on your phone or iPad. Make notes on the differentials, workups, and treatments of common diseases. Also, note emergency/urgent conditions that can cause the following symptoms.

The list below is based on the internal medicine faculty's national survey results, which identifies high priority "training problems" that should be emphasized in the core clinical clerkship. Students should understand the basic clinical approach to presentations (see below). *Harrison's Principles of Internal Medicine* Part 2 has well written sections on the approach to the following(<https://accessmedicine-mhmedical-com.proxy.westernu.edu/content.aspx?bookid=2129§ionid=192010902>):

Patients Presenting with a Symptom, Sign, or Lab Abnormality

- Abdominal pain
- Altered mental status (Confusion Delirium)
- Anemia
- Back pain
- Chest pain
- Cough
- Diarrhea
- Dyspnea
- Dysuria
- Fever
- Fluid, electrolyte, and acid-base disorders
- Gastrointestinal bleeding
- Knee pain
- Rashes (Fever and Rash)
- Stroke (Neurologic Causes of Weakness and Paralysis)
- Urine Abnormalities and Azotemia

In addition, the following should be reviewed (especially for those in the outpatient setting) to practice health promotion

- Cancer screening
- Smoking Cessation
- Depression Screening
- Alcohol Abuse Screening
- Diets: Low Cholesterol/low fat, Low Sodium, ADA Diet, High Fiber

4. Download apps to your hand-held device to have “at the ready” for patient care.

- a. Epocrates
- b. Medscape
- c. UptoDate (App is available Free through Pumerantz Library)
- d. Medical Calc
- e. AHRQ ePSS
- f. ECG Basics
- g. Chest X-ray interpretation
- h. Washington Manual (some free content on the app) or Pocket Medicine: The Massachusetts General Hospital Handbook of Internal Medicine (app is Pocket Notebook for the Pocket Medicine book published by Wolters Kluwer Health)
- i. Internal Medicine On Call (LANGE On Call) (paperback and App with some free content) by Robbins, John, Haist, Steven

5. Required Equipment

- a. Lab coat

- b. Stethoscope
 - c. Portable otoscope/ophthalmoscope (often hospital room and wards do not have these readily available)
 - d. Penlight
 - e. Reflex Hammer
 - f. Measuring Tape
6. Review your physical exam and specialized exams in cardiology and neurology etc. Keep notes on the interpretation of exam findings.
- Please refer to Bates Videos found in the Pumerantz Library
 - Please refer ECM I-IV material
7. Review the interpretation of the following:
- a. ECG
 - b. ABG
 - c. CXR
 - d. Abdominal X-ray
 - e. Urine Analysis

Expectations and Requirements During the Rotation

Expectations

1. Review the Plenary lecture, including any updated versions (please see Elentra under “Introduction”)
2. Set goals to accomplish the objectives below (See Core Learning Objectives below)
3. Practice the skills as described below identified as “Entrustable Professional Activities.”
4. Readings and Modules
 - a. Complete readings and modules associated with the “Topics to Know” (Please see below and Elentra under the “Curriculum” and then “Topic to Know” tabs).
 - b. The End of the Rotation Quiz (see below) is based on the readings on the “Topics to Know” from Current Medicine (available free through Pumerantz Library’s Access Medicine) and Aquifer modules assigned, which are also with the “Topics to Know.”
 - c. The readings and Aquifer modules are not graded. You are expected to complete the readings and complete the modules, but you will not be graded for the work or the amount of reading you are doing.

5. Online-Professionalism:

The following are expected behaviors during your online meeting via Zoom or any other online meeting applications.

- a. In all instance, please have your camera on while using Zoom. Our voices are only part of the way we communicate; our facial expressions are just as important.
- b. Turn mic off (mute) when not in use to avoid background noise that may be disrupting the

- online session.
- c. Dress professionally. Avoid T-shirts if possible, and sleepwear is prohibited.
 - d. Be professional and cautious in the way you communicate including when using the chat.
 - e. Be aware of the background behind you while your camera is on.
 - f. Please check your emails and Elentra page daily for any updates. Therefore, have your iPhone or iPad with COMP Connect available
 - g. Select a quiet space to be on Zoom at your rotation site, outdoors, or wherever distractions and noise are at a minimum.
 - h. Do not drive while on a Zoom Case Conference or any Zoom meeting.
2. Check Elentra and emails daily for any notifications and assigned Case Conference groups, dates and times. Dates and times may change depending on the attendings' schedules. However, a Case Conference schedule for the month at the beginning of each rotation is available on Elentra (See below)
6. All physicians and should be familiar with the prevention, presentation, risk factors, pathophysiology and the latest management of COVID-19. Therefore, regularly review COVID-19: ACP Physician's Guide and Resources
([https://assets.acponline.org/coronavirus/scormcontent/?&_ga=2.106525699.189143090.1594418449-123253917.1594418449#/\)](https://assets.acponline.org/coronavirus/scormcontent/?&_ga=2.106525699.189143090.1594418449-123253917.1594418449#/))

Required Activities

1. Take the End of the Rotation Quiz
 - a. The quiz is 20-25 questions and will be released on the fourth week of the rotation
 - b. Grading will be recorded as Pass/Fail. Passing grade is 70%. All students will have three attempts to pass.
 - c. Students who fail the quiz more than two times will remediate the quiz and will be informed of the remediation procedures.
 - d. The quiz opens on the last Monday of a rotation and closes the Sunday before a new rotation at 11:59 PM.
2. Case Conference
 - a. Case Conference: Students are required to attend all assigned case conferences where an attending faculty member will guide students through a case from chief complaint to management.
 - i. You are given a chief complaint for each conference on the schedule, which is posted in Elentra (see iv). Please prepare by reading about the symptom (chief complaint).
 - ii. At the end of the case, one of the students in attendance will be asked to orally present the case discussed, so pay attention and take notes.
 - iii. You will only get credit for attending if you participate. You must be reasonably prepared and answer questions when called upon. Ideally, you should be asking questions, volunteering to provide differential diagnoses, and answering questions.
 - iv. To access the Case Conference Schedule, please go to Elentra (IM1 or IM2) under the "Curriculum," then select "Case Conference," and then select "Case Conference Schedule" under "Additional Pages" at the top left side of page.
 - b. Objectives: Case Conference is an opportunity to
 - i. Formulate differential diagnoses

- ii. Prioritize differential diagnoses
- iii. Formulate an assessment
- iv. Formulate treatment plans
- v. Organize thoughts into an efficient oral presentation.

SUMMARY of REQUIREMENTS

- 1. Complete and pass the End of the Rotation Quiz
- 2. Attend all assigned Case Conferences

Diagnoses/Conditions Required to Know (“TOPICS to KNOW”)

The following are topics that you need to know. Please look at the topics you need to know under the rotation name (below) that you are assigned to (either IM1 or IM2). Recommended readings are from Current Medicine (available free through Pumerantz Library’s Access Medicine) and modules assigned (including Aquifer) Please see Elentra to view the links of the specific recommended readings and modules associated with each of these topics. The End of the Rotation Quiz is based on these readings or modules (including Aquifer).

IM 1 TOPICS				
Cardiology	Rheumatology	Nephrology	Endocrinology	Hematology/Oncology
Abdominal and Thoracic Aortic Aneurysm	Back Pain	Acute Kidney Injury and Acute Glomerulonephritis	Adrenal Insufficiency	Acute Myeloid Leukemia
ACS	Gout	Chronic Kidney Disease	Diabetes mellitus	Anemia
Atrial Fibrillation	Septic arthritis	Hyperkalemia	Diabetic Ketoacidosis /HHS	Disseminated Intravascular Coagulation
Atrial Flutter	Systemic Lupus Erythematosus	Hypernatremia	Graves Disease	Heparin Induced Thrombocytopenia
Endocarditis		Hypertension	Hypothyroidism	Hodgkin’s and Non-Hodgkin’s
Heart failure		Hypokalemia	Myxedema Coma	Immune Thrombocytopenic Purpura
NSTEMI		Hyponatremia	Thyrototoxicosis	Lymphoma
Pericardial Effusion (Disease)		Nephrotic Syndromes		Multiple Myeloma
Peripheral Vascular Disease		Renal Failure/Chronic Kidney Disease		Pulmonary Embolism
STEMI				Sickle Cell Disease and Crisis
Syncope				Thrombotic Thrombocytopenic Purpura/Hemolytic Uremic Syndrome
				Venous Thromboembolism

IM 2 TOPICS				
Gastroenterology	Infectious Disease	Neuro/Toxicology	Neurology	Pulmonology
Acute and Chronic Diarrhea	Cellulitis	Acetaminophen and Opioid Overdose	Cauda Equina Syndrome	Asthma
Acute Liver Failure	Cystitis	Delirium	Meningitis	COPD/obstructive airways disease
Acute mesenteric ischemia	HIV		Seizures	Hemoptysis
Alcoholic Hepatitis	Neutropenic Fever		Stroke and Transient Ischemic Attack	Interstitial Lung Disease
Cholecystitis (biliary colic)	Osteomyelitis			Lung Cancer/Lung Nodule
Cirrhosis	Pneumonia - Hospital and Community Acquired			Pleural Effusion
Clostridium difficile	Pyelonephritis			Pneumothorax
Diverticulitis	Sepsis Syndromes			
Diverticulosis	Syphilis			
Esophageal/Gastric Varices	Tuberculosis (Pulmonary)			
Inflammatory bowel disease				
Lower GI Bleed				
Myocardial Infarction				
Pancreatitis				
Peptic and Duodenal Ulcer				
Upper GI Bleed				

Procedures to Perform or Observe

Basic Procedures

Prior to graduation, medical students must obtain experience performing the basic, yet essential, procedures listed below. In addition, students must be able to define, describe and discuss these procedures, and understand their indications, risks, contraindications and benefits.

- Venipuncture
- Blood Culture
- Arterial blood gas sampling and interpretation
- ECG performance and interpretation
- Nasogastric tube placement
- Urethral catheterization
- Peripheral intravenous catheter insertion
- Urine dip stick and interpretation
- Subcutaneous injection
- Intramuscular injection
- Wound culture
- Dressing Change
- PPD placement

Advanced Procedures

All students must be able to define, describe and discuss the following procedures, and understand their indications, risks, contraindications, and benefits.

1. Lumbar Puncture
<https://www.youtube.com/watch?v=WpXGUn7eGZE>
2. A-line Placement
<https://www.youtube.com/watch?v=8hK04ai17-k>
3. Arthrocentesis
<https://www.youtube.com/watch?v=fZ2dcZhoGP8&list=PLSojLeKIMzEaZavVDeaHMHCLQPfUxat>
4. Thoracentesis
<https://www.youtube.com/watch?v=ivTyH09BcHg>
5. Paracentesis
<https://www.youtube.com/watch?v=KVpwXK7cvzQ>
6. Central Line Placement -Internal Jugular Line
<https://www.youtube.com/watch?v=HE5QhsPRaPU>
7. Central Line Placement – Subclavian Line
<https://www.youtube.com/watch?v=kTav19s5WlQ>

8. Central Line Placement - Femoral Vein Placement
<https://www.youtube.com/watch?v=IO0eiqhpA-A>
9. Pulmonary artery Catherization
https://www.youtube.com/watch?v=MplFz_p3cqk
10. Echocardiogram
<https://www.youtube.com/watch?v=le4SWaF-oSY>
11. Coronary artery anatomy
<https://www.youtube.com/watch?v=xSnFf62GDBI>
12. Catheterization Left and Right Coronary Arteries
<https://www.youtube.com/watch?v=z2mqnneasuU>
13. Coronary Angiogram. A video for patient education
<https://www.youtube.com/watch?v=F2bJFDvDVxg>

Skills to Practice (Entrustable Professional Activities Specific for Rotation)

Practicing the following skills is essential:

1. Interpret ECG
2. Read Chest X-rays
3. Detailed Physical Exam
4. Interpret ABGs
5. Interpret Urine Analysis, CBC,
6. Identify the quality of a sputum sample
7. Create a differential of organisms based on a gram stain.
8. Interpret the findings of cerebral fluid analysis

Skills (AACOM Entrustable Professional Activities)

The following are the professional activities that you will be entrusted to perform independently on say 1 of your residencies. Practicing these skills and working towards mastery is essential to your ability to medical education.
<https://www.aacom.org/docs/default-source/med-ed-presentations/core-epas.pdf?sfvrsn=10>

EPA 1: Gather a history and perform a physical examination.

EPA 2: Prioritize a differential diagnosis following a clinical encounter.

EPA 3: Recommend and interpret common diagnostic and screening tests.

EPA 4: Enter and discuss orders and prescriptions.

EPA 5: Document a clinical encounter in the patient record.

EPA 6: Provide an oral presentation of a clinical encounter.

EPA 7: Form clinical questions and retrieve evidence to advance patient care.

EPA 8: Give or receive a patient handover to transition care responsibility.

EPA 9: Collaborate as a member of an interprofessional team.

EPA 10: Recognize a patient requiring urgent or emergent care and initiate evaluation and management.

EPA 11: Obtain informed consent for tests and/or procedures.

EPA 12: Perform general procedures of a physician.

EPA 13: Identify system failures and contribute to a culture of safety and improvement

Required Readings

The Department of Internal Medicine has selected readings from Access Medicine (which requires your logon through the Pumerantz Library) and modules from Aquifer. Readings and the modules are associated with the cases above and can be found in Elenra.

Resources and Media

1. Harrison's Principle of Internal Medicine, 20th Ed. (Access Medicine): ISBN 9781259644030
2. Uptodate ((free through WesternU Pumerantz Library)
3. Goldman's Cecil's Medicine, 24th Ed. ISBN 9781437716047 (go to Pumerantz Library and type the name in electronic resource)
4. Current Medical Diagnosis and Treatment 2021. McGraw-Hill; (Access Medicine)
5. Hospital Medicine, 2nd Edition (Access Medicine) ISBN 9780071843133
6. Bates' Guide to Physical Examination & History Taking, 12th Ed. Bickley, et al. (Wolters Kluwer) ISBN 9781469893419
7. Pocket Medicine: The Massachusetts General Hospital Handbook of Internal Medicine, 6th Ed. ISBN 9781496349484
8. Clinician's Pocket Reference: The Scut Monkey, 11e. McGraw-Hill. (Access Medicine)
9. Step-Up to Medicine (Step-Up Series), 5th Ed. ISBN 9781975103613
10. OnLineMedEd Videos

Resources at the Ready to Have on Cellphones and iPads

Download apps and other electronic resources "at the ready" for quick reviews and helpful tools.

Recommended downloads for handheld devices:

- Epocrates
- Medscape
- Uptodate
- Medical Calc
- AHRQ ePSS
- ECG Basics
- Chest X-ray interpretation
- Washington Manual (Some free content)

Core Rotation Learning Objectives

See Tables Below

The osteopathic medical student will be expected to:

1. Apply basic knowledge of the pathology and physiology of the organ systems into the care of the medical patient.
2. Apply basic knowledge of molecular, biochemical, and cellular mechanisms to the care of the medical patient for maintaining homeostasis.
3. Perform an appropriately comprehensive history and physical examination, collect pertinent diagnostic data, and develop an assessment and plan. Then synthesize these items into a concise oral presentation and written note.
4. Formulate and communicate differential diagnoses tailored to each medical patient and prioritize the list.
5. Search the medical literature for the most current aspects of diagnostic and management strategies to thereby apply the principles of evidence-based medicine to the care of the individual medical patient.
6. Formulate strategies for disease prevention based on knowledge of disease pathogenesis and mechanisms of health maintenance.
7. Formulate strategies of treatment and apply them to the care of the individual medical patient in the context of their ability to comply with the plan, whether it be due to socioeconomic or medical/behavioral conditions.
8. Formulate diagnostic and treatment plans taking into consideration a cost-benefit analysis and access to healthcare.
9. Respect the cultural and ethnic diversity of their patients' beliefs in evaluating and managing their medical care.
10. Display honesty, integrity, respect, and compassion.
11. Participate in the education of patients, families, and other students.
12. Display collegiality and professionalism toward all members of the healthcare team.
13. Communicate effectively with the patient, patient family member, and all members of the patient's larger health care team.

Grading (See Example Below)

Evaluation/Grading

Grading for your clerkship will be calculated according to the Clinical Education Manual (<https://www.westernu.edu/media/osteopathic/pdfs/cem.pdf>). However, completion of the rotation will also depend on:

- Completing the assignment described above (Expectations During Rotation)

Rotation Faculty (See Example Below)

Appointments made on an as needed basis.

Nishita Patel, M.D.

Vice-Chair of Internal Medicine
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Pomona:

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Lebanon:

Kim Ketcham, Assistant Director of Clinical Education (541) 259-0666

Rotation Schedule

Schedules are posted on Elentra and subject to change on a regular basis. Please check emails and Elentra regularly.

General Policies

Policy on Disability Accommodations: To obtain academic accommodations for this rotation, students with disabilities should contact the Center for Disability Issues and the Health Professions and the system coordinator within ten days of the beginning of the system. Disability Services can be reached at 909.469.5380.

Remediation Policy: Refer to the Clinical Education Manual

Attendance Policy: Refer to the Clinical Education Manual

Academic Dishonesty: Complete confidence in the honor and integrity of the health professions student and health care professional is essential. Such confidence depends entirely on the exemplary behavior of the individual health care provider in his or her relations with patients, faculty and colleagues. Strict honesty as a personal way of life should be nurtured during the period of education for professional service. The student shall conduct all aspects of his or her life with honor and integrity. This includes accountability to oneself and to relationships with fellow students, future colleagues, faculty, and patients who come under the student's care or contribute to his or her training and growth, and members of the general public. This applies to personal conduct that reflects on the student's honesty and integrity in both academic and non-academic settings, whether or not involving a University sponsored activity. Upon accepting admission to the University, each student subscribes to and pledges complete observance to the Standards of Academic and Professional Conduct as outlined in the University Catalog for each academic program. A violation of these standards is an abuse of the trust placed in every student and could lead to suspension or dismissal.

Table 1

WU INSTITUTIONAL OUTCOMES	Learning Objective	Health Professional Education
Critical Thinking¹	1,2,3,4,5,6,7,8,11,	The student should be able to identify and solve problems that require the integration of multiple contexts when performing patient care.
Breadth and Depth of Knowledge in the Discipline/Clinical Competence²	1,2,3,4,5,6,7,8,9,11	The student should be able to perform appropriate diagnostic and therapeutic skills, to apply relevant information to patient care and practice, and to educate patients regarding prevention of common health problems.
Interpersonal Communication Skills³	3,4,9,10,11, 12, 13	The student should be able to effectively use interpersonal skills that enable them to establish and maintain therapeutic relationships with patients and other members of the health care team.
Collaboration Skills⁴	3,4,8,9,11,12, 13	The student should be able to collaborate with patients and with other health professionals to develop a plan of care to achieve positive health outcomes for their patients
Ethical and Moral Decision-Making Skills	8,9,11	The student should be able to perform the highest quality of care, governed by ethical principles, integrity, honesty and compassion.
Lifelong Learning	5,7,8,9	The student should be able to engage in life-long, self-directed learning to validate continued competence in practice.
Evidence-Based Practice	2,3,4,5,6,7,8,9	The student should be able to utilize research and evidence-based practice and apply relevant findings to the care of patients.
Humanistic Practice	8,10,11,12,13	The student should be able to carry out compassionate and humanistic approaches to health care delivery when interacting with patients, clients, and their families. They should unfailingly advocate for patient needs.

Table 2

COMP/AOA CORE COMPETENCIES	Learning Objective	Competency: Osteopathic Medical Students are part of an educational continuum that leads to residency and the curriculum provides the foundation for the following outcomes:
Osteopathic Philosophy and Osteopathic Manipulative Medicine	6,9,10,11,	Residents are expected to demonstrate and apply knowledge of accepted standards in Osteopathic Manipulative Treatment (OMT) appropriate to their specialty. The educational goal is to train a skilled and competent osteopathic practitioner who remains dedicated to life-long learning and to practice habits in osteopathic philosophy and manipulative medicine.
Medical Knowledge	1,2,3,4,5,6,7,8,9,11	Residents are expected to demonstrate and apply knowledge of accepted standards of clinical medicine in their respective specialty area, remain current with new developments in medicine, and participate in life-long learning activities, including research.
Patient Care	2,3,9,10,11 13	Residents must demonstrate the ability to effectively treat patients, provide medical care that incorporates the osteopathic philosophy, patient empathy, awareness of behavioral issues, the incorporation of preventative medicine, and health promotion.
Interpersonal and Communication Skills	4,8,9,10, 11, 12, 13	Residents are expected to demonstrate interpersonal/communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.
Professionalism	7,9,10,11, 12, 13	Residents are expected to uphold the Osteopathic Oath in the conduct of their professional activities that promote advocacy of patient welfare, adherence to ethical principles, collaboration with health professionals, life-long learning, and sensitivity to a diverse patient population. Residents should be cognizant of their own physical and mental health in order to effective care for patients. Please note that professionalism is an integral part of the career of a physician. Clinical sites do have the right to fail a student or remove them from rotation due to deficits in professionalism.
Practice-Based Learning and Improvement	5,6,7,8,	Residents must demonstrate the ability to critically evaluate their methods of clinical practice, integrate evidence-based medicine into patient care, show an understanding of research methods, and improve patient care practices.
Systems-based Practice	5,6,7, 8,	Residents are expected to demonstrate an understanding of health care delivery systems, provide effective and qualitative patient care within the system, and practice cost- effective medicine.

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