



College of Osteopathic
Medicine of the Pacific

Syllabus for Internal Medicine Clerkship (Pulmonary Medicine)

Course No.:	OM 7020, 7021, 7025, 7050	Course Title:	Pulmonary Medicine Clerkship
Credit Hours:	4 weeks, 10 credit hours for each rotation	Clerkship Director: Department Chair:	Katrina Platt, D.O. Emmanuel Katsaros, D.O.
Term - Dates:	Variable in OMS III/IV academic year	Level:	OMS III

Department of Clinical Education Contact Information

FOR POMONA CAMPUS

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Educational Goal

Purpose of the Rotation:

The purpose of these rotations is to provide the student with a solid foundation in the diagnosis and management of Pulmonary and critical care conditions as well as health care maintenance and disease, regardless of what specialty the student may eventually pursue.

Rotation Description:

Internal Medicine III (10 credit hours)

This course provides supervised clinical education in general internal medicine and/or in an internal medicine subspecialty. Expected competencies include clinical management, technical and procedural skills, interpretation of diagnostic data, patient education, development of diagnostic and management plans, and inter-professional communication. In subsequent courses in this series, students are exposed to progressive involvement and independence in patient management. Prerequisite: OM 7020.

Pulmonary and Critical Care Learning Objectives

The student will be expected to:

1. Apply basic knowledge of the anatomy and physiology of the organ systems to the care of the medical patient. (COMP/AOA core competencies 2; Institutional outcomes 1, 2).
2. Apply basic knowledge of the molecular, biochemical, and cellular mechanisms for maintaining homeostasis in the care of the medical patient. (COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2, 7).
3. Refine skills to obtain appropriately comprehensive history and physical examination on both acute and chronic hospitalized and ambulatory medical patients. (COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2, 3, 4, 7)
4. Formulate and communicate a focused differential diagnostic problem list on each medical patient. (COMP/AOA core competencies 2, 4; Institutional outcomes 1, 2, 3, 4, 7).
5. Identify knowledge deficits and 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. This will be supported by ACP on-line material such as guidelines review. (COMP/AOA core competencies 2, 6, 7; Institutional outcomes 1, 2, 6, 7).
6. Formulate strategies for disease prevention based on knowledge of disease pathogenesis and mechanisms of health maintenance, with the support of ACP on-line guidelines and the United States Preventative Task Force Recommendations. (COMP/AOA core competencies 2, 6, 7; Institutional outcomes 1, 2, 7, 8).
7. Integrate concepts of epidemiology and population-based research methods into the care of the individual medical patient. (COMP/AOA core competencies 2, 4, 6, 7; Institutional outcomes 1, 2, 7).
8. Formulate diagnostic and treatment plans taking into consideration a cost-benefit analysis and access to healthcare. (COMP/AOA core competencies 2, 4, 6, 7; Institutional outcomes 1, 2, 4, 5, 6, 7, 8).
9. Skillfully present patient history, physical and diagnostic information in a systematic, coherent and concise manner, which addresses the chief complaint/problem, identifies pertinent positive and negative findings and supports a logical assessment. (COMP/AOA core competencies 2, 3, 4; Institutional outcomes 2, 3).
10. Respect the cultural and ethnic diversity of their patients' beliefs in evaluating and managing their medical care. (COMP/AOA core competencies 1, 2, 3, 4, 5; Institutional outcomes 2, 3, 4, 5, 6, 8).
11. Display honesty, integrity, respect, and compassion for patients and their families. (COMP/AOA core competencies 1, 2, 3, 4, 5; Institutional outcomes 2, 3, 4, 5, 6, 8).
12. Participate in the education of patients, families, and other students. (COMP/AOA core competencies 1, 2, 3, 4, 5; Institutional outcomes 1, 2, 3, 4, 5, 8).
13. Participate in an inter-professional team to enhance patient safety and improve patient care. (COMP/AOA core competencies 1, 2, 3, 4, 5, 6, 7; Institutional outcomes 1, 2, 3, 4, 5).
14. Display collegiality, professionalism and respect toward all members of the healthcare team. (COMP/AOA core competencies 4, 5, 7; Institutional outcomes 3, 4).
15. Follow all infection control policies and guidelines as established by the Centers for Disease Control and Prevention (CDC) and the Society for Healthcare Epidemiology of America (SHEA). (COMP/AOA core competencies 2, 4, 6, 7; Institutional outcomes 1, 2, 7).
16. Obtain a greater understanding of the patient-physician relationship and consistently apply the "bio psychosocial model." (COMP 1,2,3,5,7; Institutional Outcomes 1,2,3,4,5,6,8).
17. Apply Osteopathic Principles and Practice as an integral part of patient treatment and care. (COMP 1,2,3,4,5, 6,7; Institutional Outcomes 1,2,3,4,5,6,7,8).

Rotation Expectations

1. Assist in consulting patients in the hospital (under the supervision of a medicine resident/intern).
2. Write accurate, organized and legible progress notes.
3. Recommend to the intern, resident or attending physician a treatment plan for assigned patients.
4. Demonstrate knowledge of specific medical procedures (indications and contraindications).
5. Make daily rounds and record progress notes and review orders on patients (Preceptors/Clinical Faculty: please direct students on approved use of any electronic medical records. If the student is not allowed to enter data directly into the electronic records, please have the student "hand write" all progress notes and orders for daily review).
6. Accompany attending, residents and interns on rounds
7. Effectively communicate with attending, residents and interns about patients when on rounds and with regard to perceived problems with patients and any change of status of patients.
8. Participate in all conferences, morning reports, lectures, and meetings as directed by the attending and COMP faculty.
9. Lecture or present case histories as requested by interns, residents or attending
10. Be timely.
11. Wear appropriate attire.
12. Be professional at all times.

Required Educational Assignments

For IM1 and IM2, please refer to ECM 5 on Blackboard (ECM 5 Syllabus)

Recommended Procedures List (to see or do)

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. As appropriate, medical students should be able to obtain written or verbal consent. All or most of these skills can be performed during an internal medicine clerkship.

- Venipuncture
- Blood Culture
- Urethral catheterization
- Throat culture
- Urine dip stick and interpretation
- Subcutaneous injection
- Intramuscular injection
- Wound culture
- Dressing Change
- PPD placement

Advanced Procedures

The following advanced procedures may be performed by general internists and occasionally by a third-year medical student under their supervision. All students must be able to define, describe and discuss these procedures, and understand their indications, risks, contraindications, and benefits. Although residents and attending are responsible for obtaining written consent, none of the following procedures should commence without following appropriate protocols to obtain the consent, and students should participate in obtaining an informed consent. In addition, students should gain experience writing procedure notes that document the indications, how the procedure was done, and complications.

- Arthrocentesis: elbow, knee or ankle and interpretation
- Central venous catheterization: internal jugular vein, subclavian vein, and femoral vein
- Arterial line placement
- Lumbar puncture and interpretation
- Thoracentesis and interpretation
- Paracentesis and interpretation

Core Topics of Study

The topics in **bold** in the table below indicate high yield subjects that are recommended to focus on if there is not time to study in depth on all subjects listed.

1. Interpretation of culture and sensitivity data on sputum, urine, blood, wound and quantitative burn cultures.
2. The spectrum, pharmacokinetics, side effects and toxicities along with the dosing of the major classes of antibiotics and antiviral.
3. Interpretation of acid base disorder and how to apply it clinically in managing patients
4. Interpretation of blood gases.
5. Understand the basic concepts behind mechanical ventilation.

Core Pulmonary Disease Out-Patient:	Core Internal Medicine In-Patient:
Sinusitis Otitis Community acquired pneumonia Chronic Obstructive Pulmonary Disease Pulmonary fibrosis Pulmonary Hypertension Sarcoidosis Tuberculosis Smoking cessation Altitude sickness/pulmonary edema Asthma Cystic fibrosis Sleep study	Nosocomial pneumonia Drug eruptions Fever and Fever of Unknown Origin Nosocomial infections Sepsis/sepsis syndrome Surgical wound infection Fungemia Catheter related infections. Infections in trauma patients. Infections in transplant patients. Complicated and uncomplicated intraabdominal infections Bacteremia: staph species, enterococcus species, others. COPD exacerbation Asthma exacerbation Respiratory failure and ventilator care Respiratory acidosis/alkalosis Hypoxia/hypercapnia Pulmonary embolus diagnosis and treatment/DVT prophylaxis Lung cancer Intubation/mechanical ventilation Management of post lung transplantation Bronchoscopy Pleural effusion Pneumothorax Sarcoidosis Tuberculosis

Clinical Faculty

Students are assigned to specific credentialed clinical faculty/preceptors at their core clinical site.

Pomona	Lebanon
Katrina Platt, D.O. Clerkship Director for Internal Medicine Assistant Professor of Internal Medicine Appointments available by email at kplatt@westernu.edu	Katherine Fisher, DO, Clerkship Director for Internal Medicine and Director for Clinical Education Assistant Professor of Internal Medicine Appointments available by email at kfisher@westernu.edu

Instructional Methods

Scheduled rotation time will be used for supervised patient care, case presentations (onsite and online) and independent studying. You will be required to complete on-line modules as part of your requirement to successfully pass the rotation. You will also be required to review current guidelines on evidence-based medicine posted on the ACP website.

Texts and Media

Required Textbook:

1. Murray: Textbook of Respiratory Medicine
2. Murray: Atlas of Procedures in respiratory Medicine
3. George: Chest Medicine: Essentials of Pulmonary and Critical Care Medicine
4. Kochar's Clinical Medicine for Students, 6th Ed. ISBN 978-1491781340

Required Media:

1. Up to Date (free through WesternU)

Optional Textbooks: For additional references

1. Bates' Guide to Physical Examination & History Taking, 12th Ed. Bickley, et al. (Wolters Kluwer) ISBN 9781469893419
2. Cecil's Essentials of Medicine, 9th Ed. ISBN 9781437718997
3. Pocket Medicine: The Massachusetts General Hospital Handbook of Internal Medicine, 6th Ed. ISBN 9781496349484
4. Harrison's Principle of Internal Medicine, 20th Ed. (Access Medicine): A gold standard internal medicine book that connects pathophysiology to a patient's presentation. It also provides a complete narrative to subspecialty areas of medicine and their diseases while providing context to all the topics. ISBN 9781259644030
5. Hospital Medicine, 2nd Edition (Access Medicine) ISBN 9780071843133
6. Step-Up to Medicine (Step-Up Series), 5th Ed. ISBN 9781975103613

Recommended downloads for handheld devices:

- Epocrates
- Medscape
- Medical Calc
- AHRQ ePSS

NOTE: Individual preceptors may include other resources.

Rotation Format, Evaluation, Grading and Student Feedback

Additional information is located in the Clinical Education Manual at:
<https://www.westernu.edu/media/osteopathic/pdfs/cem.pdf>

Rotation Schedule

Each site will provide students with a schedule on their first day of the rotation. If not provided please ask and have a clear understanding as to the expectations. These schedules are rarely available prior to the start the rotation. It is solely your responsibility to read and understand all information provided to you by the site. Some sites have additional requirements above and beyond those set forth by the College of Osteopathic Medicine.

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 completion of the ECM 5 /IM quizzes, which corresponds to your clerkship schedule. So, if you are taking two month of IM clerkships in your block of rotations, please complete the assignments and quizzes for those two months. If you are in IM3, complete one month of your ECM assignments and ECM5/IM quiz. In addition, attendance for the online case conference is mandatory for the completion of your IM Clerkship.

Please note, your attending/preceptor's evaluation is based on, but not limited to the following:

- Communication skills regarding patients
- Care provided to assigned patients
- Attendance and participation at conferences, morning reports lectures and meetings
- Demonstration of library references on patients
- Completion and accuracy of paperwork on patients (Histories and Physicals, progress notes, treatment plans, presentations, handouts, etc.)
- Interaction with attendings, residents, students, medical staff, nursing and ancillary personnel
- General knowledge base and knowledge applied to specific patients
- Motivation in the learning process
- Overall performance, participation, enthusiasm to learn, and effort to improve
- Mid-rotation grades should be given by the intern/resident/attending.
The final grade should be given/reviewed with the student on the last day of the rotation.

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 at <https://www.westernu.edu/media/osteopathic/pdfs/cem.pdf>.

Attendance Policy: Refer to the Clinical Education Manual at <https://www.westernu.edu/media/osteopathic/pdfs/cem.pdf>.

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.

WU INSTITUTIONAL OUTCOMES		Health Professional Education
1	Critical Thinking	The graduate should be able to identify and solve problems that require the integration of multiple contexts when performing patient care.
2	Breadth and Depth of Knowledge in the Discipline/Clinical Competence	The graduate 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.
3	Interpersonal Communication Skills	The graduate 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.
4	Collaboration Skills	The graduate should be able to collaborate with clients and with other health professionals to develop a plan of care to achieve positive health outcomes for their patients.
5	Ethical and Moral Decision Making Skills	The graduate should be able to perform the highest quality of care, governed by ethical principles, integrity, honesty and compassion.
6	Life Long Learning	The graduate should be able to engage in life-long, self-directed learning to validate continued competence in practice.

7	Evidence-Based Practice	The graduate should be able to utilize research and evidence-based practice and apply relevant findings to the care of patients.
8	Humanistic Practice	The graduate should be able to carry out compassionate and humanistic approaches to health care delivery when interacting with patients, clients, and their families. They should unflinchingly advocate for patient needs.

COMP/AOA CORE COMPETENCIES		Competency: Osteopathic Medical Students are part of an educational continuum that leads to residency and the curriculum provides the foundation for the following outcomes;
1	Osteopathic Philosophy and Osteopathic Manipulative Medicine	Graduates 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.
2	Medical Knowledge	Graduates 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.
3	Patient Care	Graduates 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.
4	Interpersonal and Communication skills	Graduates 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.
5	Professionalism	Graduates are expected to uphold the Osteopathic Oath in the conduct of their professional activities that promote advocacy of patient welfare, adherence to ethical principles, and 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.
6	Practice-Based Learning and Improvement	Graduates 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.
7	Systems-based Practice	Graduates 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.

COMPARISON OF OUTCOMES STANDARDS: WU AND COMP	WU	COMP
Critical Thinking	1	1, 2, 3 6
Breadth and Depth of Knowledge in the Discipline/Clinical Competence	2	1, 2, 3, 4, 5, 6, 7
Interpersonal Communication Skills	3	4
Collaboration Skills	4	4
Ethical and Moral Decision Making Skills	5	1, 3,5,6
Life Long Learning	6	1, 2, 3, 6, 7
Evidence-Based Practice	7	1, 2, 3, 6, 7
Humanistic Practice	8	3, 4, 5

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