Edward Via College of Osteopathic Medicine

MED 8017/MED8018
Rural and Medically Underserved Population Primary Care and Modules
Academic Year 2024-2025

ROTATION SYLLABUS

Jonah Flowers, DO
Discipline Chair, Family Medicine for Rural and Medically Underserved Areas
Louisiana Campus
Phone: 318-342-7138
jflowers@ulm.vcom.edu

Phillip Snider, DO, MS, RD, FAAFP
Discipline Chair, Primary Care for Rural and Medically Underserved Areas
Auburn Campus
Phone: 334-442-4102
psnider@auburn.vcom.edu

I. Rotation Description

Primary Care is a field that is beloved by physicians because of the variety of opportunities offered. In areas, not only will primary care trained physicians work in outpatient settings, but often in emergency rooms, hospitals, specialty clinics, and urgent care centers. They also often assist in surgery and prov obstetrical and newborn care. In rural and medically underserved urban areas, primary care physicians care for patients with a host of complicated medical illnesses. A vast array of settings and existing primary care in a

4. Osteopathic Manipulative Medicine-

Student competency is judged on clinical skill performance. Each skill is rated as to how often the student performs the skill appropriately (i.e. unacceptable, below expectation, meets expectation, a expectation, exceptional).

C. Logging Patient Encounters and Procedures

During the clinical years students need to develop the clinical competencies required for graduation and post-graduate training. These competencies are evaluated in many different ways: by faculty observation during rotations, by examinations, by the COMLEX Level 2 CE examination, and VCOM's OMS 3 summative examinations. In order to develop many of these competencies and meet the objectives required for graduation, VCOM needs to ensure that each student sees enough patients and an appropriate mix of patients during their clinical years. For these reasons, as well as others discussed below and to meet accreditation standards, VCOM has developed requirements t log patient encounters and procedures.

Each day, students are required to log all patient type/clinical conditions and procedures/skills that they encounter that day into the VLMS application.

Within the daily log, the clinical discipline chairs have also identified a specific set of patient presentations and procedures that each student is expected to see/do during the course of t rotation that should be logged in VLMS as you experience it. Students should be familiar wi this list and should actively work to see these patients or be involved in these procedures. T list serves as a guide for the types of patients the clinical faculty think students should encounter during the rotation. The list does not include every possible diagnosis or even every diagnostic entity students must learn. The list reflects the common and typical clinical entities that the faculty feels VCOM students should experience. The list can be found in VLMS or CANVAS.

Students must learn more than they will experience during clinical rotations. The log does n reflect the totality of the educational objectives during the rotation. Clinical experience is an important part, but only a part, of your rotation requirements. Students may discover they have not seen some of the presentations/procedures on the list during the rotation; however they should arrange to see these problems in the fourth year or learn about them in other ways through the other course materials provided. Students need to commit themselves to extensive reading and studying during the clinical years. "Read about patients you see and read about patients you don't see".

One of the competencies students must develop during their clinical training involves documentatio Documentation is an essential and important feature of patient care and learning how and what to document is an important part of medical education. The timeliness and accuracy with which students maintain and update their patient logs are measures of professionalism. Students must review these logs with their preceptor prior to the end of the rotation period, as required by the fina

Demonstrate comparability of experiences at various clinical sites.
Quantify for students the nature and scope of their clinical education and highlight educational needs for self-directed learning.

Students will receive a report at the end of the OMS 3 year that outlines the patient encounters the student was involved in throughout their rotations. These individual log reports can be shared durin interviews/audition rotations/future credentialing to demonstrate the scope of their clinical experiences.

IV. Credits
MED 8017: 4 credit hours
MED 8018: 1 credit hour

V. Course Texts and Reference Materials

A. Required Textbooks

American Osteopathic Association, & Chila, A. Foundations of Osteopathic Medicine, 3rd ed. Baltimore, MD: Lippincott Williams & Wilkins, 2010. ISBN: 978-0781766715
Fowler, Grant C. Pfenninger & Fowler's Procedures for Primary Care, 4th ed. Philadelphia, PA: Elsevier, 2020. ISBN: 9780323476331 (retail price $199.99) – Available in VCOM's eLibrary in Clinical Key
Kuchera, Michael, Kuchera, William. Osteopathic Considerations in Systemic Dysfunction, Revised 2nd ed., Greyden Press, Dayton, OH: 1994. ISBN: 1-57787-741548 (retail price $55.00)
Maxwell, Robert. Maxwell Quick Medical Reference, 7th edition. Minneapolis, MN: Maxwell Publishing Company, 2024. ISBN: 9780964519169 (retail price $9.95)
Nicholas, Alexander, and Evan Nicholas. Atlas of Osteopathic Techniques, 4th edition. Baltimore, MD: Lippincott, Williams & Wilkins, 2023. ISBN: 9781975127480 (9781451193411 (retail price $179.99) – Available in VCOM's eLibrary in LWW Osteopathic Medicine Collection
Rakel, Robert, and David Rakel. Textbook of Family Medicine, 9th edition. Philadelphia, PA: Elsevier, 2015. ISBN: 9780323239905 (retail price $179.99) – Available in VCOM's eLibrary in Clinical Key
Seffinger, Michael. Foundations of Osteopathic Medicine, 4th edition. Philadelphia, PA: Wolters Kluwer Health, 2019. ISBN: 9781496368324 (retail price $142.99) – Available in VCOM's eLibrary in LWW Osteopathic Medicine Collection

VI. Course Grading and Requirements for Successful Completion

A. Requirements

Attendance according to VCOM and preceptor requirements as defined in the College Catalog and Student Handbook.

Completion and submission of 12 clinical case modules

- The clinical case modules were dew ( )10submission of 12

- Click "Sign in" in the top right corner.
- Enter your institutional email address in the email box. Then click on the "Register" button at the bottom of the page.
- You will be sent an email with a link to complete registration. Upon receipt of the registration email, click on the link "Click Here". You will then be brought to the profile setup page. An email will be sent to you. Follow the instructions in the email to set up your account.
- You will be asked to fill in your profile information and set up a password (8 character minimum). Once you have completed your user profile and created a password, you will receive a welcome email with links to useful information and guides. You would also be logged into the Aqueduct learning management system.
- Once your profile is completed successfully, you will be brought to your institution's Course page.
- You will also receive a – Tw [(00.006 Tw [(rs)-1o)Tj -0kc 0 Tw c 0 T

diagnostic decision making and management. A less involved but still meaningful encounter can be seeing a patient presented by someone else at t bedside. Although the level of responsibility in this latter case is less, students should log the diagnoses seen in these clinical encounters. Patient experiences in the operating or delivery room should also be logged.

- All students must review these logs with their preceptors prior to the end of the rotation period, as required by the final preceptor evaluation form. Students are encouraged to periodically review their VLMS entries with their preceptor during the rotation period. These reviews should stimulate discussions about cases and learning objectives, as well as identify curriculum areas the student may still need to complete

¾ Failure to log daily results in the following:
  - ¾ First notification: Email warning outlining consequences
  - ¾ Second notification: Meeting with the Associate Dean
  - ¾ Third notification: Behavioral contract
  - ¾ Fourth notification: Students will receive an IP "In Progress" grade for the rotation until logging for the rotation is completed.
  - ¾ Fifth notification: Referral to PESB/Honor Code (whichever is most appropriate), which could lead to sanctions and/or permanent record in the student file or MSPE.

Rotation evaluations:

- Student Site Evaluation: Students must complete and submit at the end of each rotation. See the VCOM website at: https://intranet.vcom.edu/clinical to access the evaluation form.
- Third-Year Preceptor Evaluation: It is the student's responsibility to ensure that all clinical evaluation forms are completed and submitted online or turned in to the Site Coordinator or the Clinical Affairs Office at the completion of each rotation. Students should inform the Clinical Affairs Office of any difficulty in obtaining an evaluation by the preceptor at the end of that rotation. See the VCOM website at: https://www.vcom.edu/academics/clinical-education/third-year/forms to access the evaluation form.
- Mid-Rotation Evaluation: The mid-rotation evaluation form is not required but highly recommended. See the VCOM website at: https://www.vcom.edu/academics/clinical-education/third-year/forms to access the mid-rotation evaluation form.

Clinical Grading Scale and GPAs						
OMS 3 End-of-Rotation Exam Grades			OMS 3 AND OMS 4 Clinical Rotation Grades		Other Grades	
A	90-100	4.0	H	Honors	IP	In Progress
B+	85-89	3.5	HP	High Pass	INC	

repeated courses will have the letter “R” at the end of the course number to reflect that they repeated. Both the grade earned for the initial courses and the repeated courses will be rec on the transcript, but only the repeated courses will be accountable, regardless of whether the initial or repeated course grade is higher.

Failure to Make Academic Progress

In general, students should show a progression of improvement in clinical performance throughout rotations. Repeated poor or failing performance in a specific competency area o the evaluation form across more than one rotation may also be a reason for a required remediation at the discretion of the Associate Dean for Clinical Affairs in consultation with th clinical chair, the preceptor, and the Promotion Board. Those students who receive a mere “Pass” on multiple rotations will be counseled about their performance and may be required to complete an additional rotation at the end of the year. Any additional curriculum or requir remediation will be based on the performance measure. Those students who continually sc in the "unsatisfactory" category or repeated "performs some of the time, but needs improvement" consistently and do not improve over time or who fail one or more rotations m be deemed as not making academic progress and, as a result, may be referred to the Prom Board and be required to complete additional curriculum. Multiple rotation failures may result in dismissal.

Poor ratings on the clinical rotation evaluation in the professional and ethical areas of the assessment are addressed by the Associate Dean for Clinical Affairs. The Associate Dean design a remediation appropriate to correct the behavior or if needed, may refer the student the Professional and Ethical Standards Board. In the case of repeated concerns in a profes and/or ethical area, the Associate Dean for Clinical Affairs may refer the student to the Cam Dean for a referral to the Professional and Ethical Standards Board or Promotion Board. The Campus Dean will act upon this referral depending on the severity and the area of the performance measure. Poor ratings in this area will include comments as to the exact natur the rating.

VII. Academic Expectations

Grading policies, academic progress, and graduation requirements may be found in the College Catalog and Student Handbook.

A. Attendance

Attendance for all clinical rotation days is mandatory. The clinical site will determine the assigned d and hours to be worked within the rotation period. Students are required to attend any orientation t clinical site sets as mandatory prior to any rotation or the clinical year. The orientation sessions va site and are required to maintain assignment to the site. Although the clinical site determines the assigned days and hours to be worked, VCOM has established the following guidelines:

- 4-week rotations may not be less than 20, 8-hour days for a total of a minimum of 160 hours and often average 180 hours or greater.
  - Students may be required to work up to 24 days in a 4-week period or 25 days in a 1 month rotation, including call and weekends at the discretion of the clinical site.
  - If the clinical site requires longer daily hours or shift work, the student may complete t required hours in less than 20 days with the following specifications:
    - Students should not work greater than an average of 12 out of every 14 days.
    - Students should not work more than 12 hours daily, exclusive of call-assignments.
    - If on-call hours are required, the student should not be on duty for greater than 30 continuous hours.

f. Recall the Glasgow Coma Scale to categorize an individual's level of consciousness.
g. Recall the appropriate mapping of a specific dermatome and the corresponding anatomical stru
h. Formulate wording of questions to help when building a history.
i. Apply the most effective ways to ask about sexuality.
j. Recognize the utility of senses such as smell when performing a physical exam (Box 3.4, Box 1
k. Differentiate percussive sounds heard when performing physical exam.
l. Identify office equipment used in primary care.
    i. Snellen visual assessment and other visual screening devices
    ii.

h. Recall the indications for antibiotic treatment in the exacerbation of COPD.
i. Develop a treatment plan for COPD and incorporate an osteopathic approach.
j. Consider rib raising to improve lung function in patients with COPD.
k.

m. Develop patient education on the complications of overuse of antibiotics in bacterial sinusitis and treatment options at home for prevention of sinusitis.

8. Pneumonia
   Reading Assignment:
   Rakel Textbook of Family Medicine, Chapter 15, pages 1233-1235
   Somatic Dysfunction in Osteopathic Family Medicine, Chapter 25, pages 2284-2286
   Module: Module 3 - Sinusitis and Pneumonia
   Online Case: Aquifer Radiology Case 1
   Learning Objectives:
   a. Generate a thorough history and perform an appropriate physical exam in the setting of an acut respiratory illness.
   b. Contrast clinical symptoms of upper respiratory infections versuspneumonia.
   c. Identify the common positive findings on physical exam for pneumonia and acute respiratory infection.
   d. Select the appropriate diagnostic studies to confirm the diagnosis in the setting of respiratory infections.
   e. List the indication for imaging in patients with suspected chest infections.
   f. Demonstrate how to effectively utilize the American College of Radiology Appropriateness Crite (ACR AC)website to select the appropriate imaging.
   g. Define the following terms associate with chest radiograph/Chest CT and explain their significance:
      i. Silhouette sign
      ii. Spine sign
      iii. Air bronchogram
      iv. Ground glass
      v. Consolidation
   h. Recognize the typical appearance of pleural effusion and hydropneumothorax on chest imaging
   i. P7lryoli 1 (l)-2 ( )]Tpul1 (f)--5 (onons)-5pneadic3 (r)f1 Tf 1.5 02 (y)- (10 ()-f (x)onTc -0.001 TwuT

9. Dysuria and Common Urinary Tract Disorders in Family Medicine
   Reading Assignment: Rakel Textbook of Family Medicine, Chapter 40, pages 957-969
   Module: Module 9 – Dysuria and Common Urinary Tract Disorders
   Learning Objectives:
   a. Recall the normal structure and physiological function of the renal and urinary tract systems.
   b. Recognize the common causes of dysuria, pain, hematuria, and renal failure in the adult patient
   c. Interpret diagnostic findings in the evaluation of a patient with a urologic complaint:
      i. Urinalysis with microscopy
      ii. Computed tomography
      iii. Renal Ultrasound
      iv. Abdominal X-ray
      v. Voiding Cystourethrography (VCUG)
   d. Identify pathophysiological mechanism of common disease conditions of the renal and urinary t
      systems that are associated with dysuria, pain, hematuria, and nephrolithiasis:
      i. Cystitis
      ii. Interstitial cystitis and bladder pain syndrome
      iii. Urethritis
      iv. Pyelonephritis
      v. Urethral syndrome
      vi. Nephrolithiasis
   e. Recognize signs and symptoms of the common urologic conditions above
   f. Indicate the appropriate evaluation of patients with complaints consistent with common urinary tract disorders.
   g. Recall the key diagnostic criteria for each of the conditions detailed.
   h. Develop an appropriate treatment plan for the patient with each urologic condition listed above.
   i. Identify and relate existing socio-economic or genetic factors contributing to the patient with dysuria, pain, hematuria, and nephrolithiasis.
   j. Identify key osteopathic diagnostic and treatment principles associated with the conditions and them to the patient.

10. Skin and Nail Infections and Dermatitis
    Reading Assignment: Rakel Textbook of Family Medicine, Chapter 33, pages 747-756, 769, 781
    Module: Module 7 – Skin and Nail Infections and Dermatitis

Identify the pathophysiology of the

11. Non-traumatic Joint Pain: Upper Extremity
    Reading Assignment:
        Rakel Textbook of Family Medicine, Chapter 30, pages 663-650
        Foundations of Osteopathic Medicine
            - Chapter 28G, pages 667-673
            - Chapter 49, pages 1457-1472, 1483-1496
        Somatic Dysfunction in Osteopathic Family Medicine, Chapter 15
    Module: Module 2 - Sports Injury, Non-Traumatic Upper and Lower Extremity
    Learning Objectives:
    a. Recognize the importance of obtaining a thorough work and environmental exposure history in the evaluation of occupational/overuse disorders.
    b. Recall osteopathic principles and concerns for the upper extremity, including occupational/overuse disorders and arthritic conditions.
    c. Describe the facilitated segments model for pain and spinal cord levels involved in upper extremity conditions.
    d. Recall the physical exam necessary to differentiate common causes of shoulder pain as well as differential diagnosis for shoulder pain.
    e. Recognize exam findings that correlate with shoulder dislocation.
    f. Differentiate rotator cuff tendonitis, impingement syndrome, and bursitis based on history and exam findings.
    g. Describe the goals of Osteopathic Manipulative Medicine (OMM) and apply the Spencer technique on treatment of shoulder pain, including arthritis conditions.
    h. Apply the Spencer technique in treatment of shoulder pain.
    i. Recall the physical exam necessary to differentiate common causes of elbow pain as well as differential diagnosis for elbow pain.
    j. Relate history and osteopathic exam findings that correlate with lateral and medial epicondylitis including radial head derangements.
    k. Apply muscle energy to the lateral and medial epicondyles to assist in healing lateral and medial epicondylitis.
    l. Recall the physical exam necessary including osteopathic considerations to differentiate common causes of wrist/hand pain/numbness as well as differential diagnosis for hand numbness.
    m. Apply the osteopathic management and treatment of carpal tunnel syndrome and deQuervain's tenosynovitis.
    n. Apply myofascial release to the carpal tunnel and muscle energy to the wrist to aid in the management of carpal tunnel syndrome and deQuervain's tenosynovitis.
    o. Predict the impact of an occupational/overuse disorder on a patient's well-being and livelihood.
    p. Distinguish the role of RICE therapy to decrease inflammation and promote healing.
    q. Identify medication options for the treatment of acute pain in an upper extremity injury.
    r. Formulate home exercises and stretches for the patient with traumatic upper extremity injuries.

12. Non-traumatic Joint Pain: Lower Extremity
    Reading Assignment:
        Rakel Textbook of Family Medicine, Chapter 30, pages 663-664
        Foundations of Osteopathic Medicine
            - Chapter 28H, pages 673-679
            - Chapter 29, pages 697-706
            - Chapter 49, pages 1457-1472, 1496-1515
    Module: Module 2 - Sports Injury, Non-Traumatic Upper and Lower Extremity
    Learning Objectives:
    a. Recognize the etiology of the common causes of lower extremity pain.
    b. Differentiate osteopathic evaluation and work up for a lower extremity injury and arthritis.

c. Recall the physical exam necessary to differentiate causes for hip, knee, leg, ankle, and foot pa
   including differential diagnoses.
d. Develop an osteopathic approach to the evaluation of lower extremity pain including:
   i. anatomical causes
   ii. facilitated segments model for pain and spinal cord levels involved
   iii. balance
   iv. tracking
   v. gait abnormalities
e. Synthesize a thorough osteopathic knee exam including fibular head derangement and patellar
   tracking.
f. Formulate an osteopathic treatment plan for knee pain combining office and ‘at home’ therapies
g. Formulate osteopathic treatments for knee pain including muscle energy to the fibular head and
   counterstrain and other indirect procedures to improve hamstring or calf muscle dysfunction
   associated with knee pain.
h. Generate diagnosis and management of patellofemoral syndrome as well as the use of indirect

p. Identify elbow and knee effusions.
q. Compare typical indications for using CT and MRI in musculoskeletal injuries.
r. Categorize the role of gait assessment along with functional, standing structural, seated, supine prone examinations.
s. Apply the integration of OMT into conservative and surgical management of sports injuries.
t. Apply muscle energy to the anterior lateral malleolus for the most common ankle sprain.

14.

b. Develop patient education on dietary sources of minerals.
c. Recall sites of absorption of key vitamins and minerals
d. Recognize health conditions that may impair metabolism or absorption of vitamins and minerals
e. Recognize health conditions that may result in increased excretion or increased requirements o vitamins and minerals.
f. Identify important aspects of the patient history and physical examination in a nutrition assessm and the components of metabolic syndrome.
g. Develop patient education on body mass index (BMI) and its role in their health and recognize h to classify obesity.
h. Recognize appropriate lab work for malnutrition assessment.
i. Recognize and educate patients about changing nutritional needs in pregnancy and lactation, childhood, adolescence and old age.
j. Appraise various diets for pros, cons and contraindications.

17. Interpreting Laboratory Tests and Results
Reading Assignment: Rakel Textbook of Family Medicine, Chapter 14, pages 180-181 157-
Module: Module 1 – Diabetes, Nutrition, Lab Results
Learning Objectives:
a. Recognize biologic variables that can affect test results.
b. Recall how to calculate a test's sensitivity, specificity and determine true vs false positives and negatives.
c. Categorize causes of decreased albumin levels.
d. Differentiate bone vs liver vs other causes of increased alkaline phosphatase levels.
e. Differentiate pancreatic vs non-pancreatic ca 0.9 (s)-0. >>BD pa e.

19. Male GU (Testicular dysfunction, tumors, testosterone therapy and ED Management)
    Reading Assignment: Rakel Textbook of Family Medicine, Chapter 40, pages 978-996
    Module: Module 10 Male GU Disorders
    Learning Objectives:
    a. Recall the normal structure and physiological function of the male genital urinary tract.
    b. Identify anatomic disorders of the male genitourinary system:
        i. Hydrocele
        ii. Hypospadias
        iii. Peyronie's disease
        iv. Phimosis and Paraphimosis
        v. Spermatoceles
    c. Recognize signs, symptoms, and complications of the testicular disorders below:
        i. Testicular torsion
        ii. Undescended testis
        iii. Varicoceles
    d. Recall the anatomical position and function of the prostate gland.
    e. Contrast differing classifications of prostatitis based upon their defining characteristics.
    f. Recall signs and symptoms of prostate cancer.
    g. Select appropriate screening test for early detection of prostate cancer when appropriate.
    h. Define erectile dysfunction and identify appropriate treatments.
    i. Formulate an appropriate evaluation for a patient reporting symptoms of erectile dysfunction
    j. Define premature ejaculation.
    k. Develop an appropriate plan for management of premature ejaculation.
    l. Recognize and select the appropriate treatment for infectious disease process of the male genitourinary system:
        i.

j. Identify the psychological, social, and spiritual needs of patients with advanced illness and their family members.