



Edward Via College of Osteopathic Medicine

MED 8020/MED 8025
Clinical Family Medicine and Modules
Academic Year 2024 - 2025

ROTATION SYLLABUS



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I. Rotation Description

The Family Medicine rotation is primarily done in the ambulatory setting, however, will often include experiences in the inpatient setting, nursing home or minor care. Family Medicine is a specialty where students can learn to diagnose and manage common acute and chronic conditions, which present to the primary care setting. Students will also learn to discriminate emergent ambulatory conditions from non-emergent.

During the rotation, students should begin to acquire the essential knowledge to practice cost effective outpatient health care, often in a rural setting. Depending on the practice, students may also be exposed to the hospital setting providing care to the patients of the family medicine physician. Because family medicine

has the unique distinction of providing continuity of care for the entire family ‘from birth to death’, students will be expected to have a variety of ambulatory exposures including general medical cases, pediatric cases, geriatric cases, office surgical procedures, osteopathic manipulative medicine and common mental health disorders. Students should also acquire skills in preventive medicine for male and female patients of all age groups according to the United States Preventive Services Task Force (USPSTF). The student should also have exposure to the business of medicine in the ambulatory setting. The VCOM mission and focus of preparing globally minded, community-focused physicians for rural and medically underserved areas is best met through Family Medicine.

The curriculum is taught through structured reading assignments, case modules, lectures, and through the student-preceptor experience. Students are expected to complete their assignments for both Family Medicine and the longitudinal OMM course. The practice of Family Medicine occurs in multiple locations: outpatient office, inpatient hospital, emergency rooms, mission trips, and long-term care facilities. Due to the variety of practice opportunities and formats in Family Medicine, students should review their [specific site instructions](#) for a more detailed description of their specific practice setting.

II. Course Goals and Objectives

A. Goals of the Course

During the third year of the curriculum, students expand their knowledge of Family Medicine and its application to the clinical setting. The Department of Family Medicine strives to embody competent and compassionate care with the integration of osteopathic principles and practices, for the entire family. Our goal is to educate students on all the aspects of being a Family Medicine specialist. Family Medicine core values that should be read, understood, and practiced, are practicing continuous healing relationships, whole person orientation, family and community context, and comprehensive care.

B. Clinical Performance Objectives

While the end-of-rotation exam is derived from the didactic curriculum and objectives described below in the “Clinical Modules – Required Curriculum” section, the end-of-rotation evaluation completed by your preceptor is based on clinical core competencies. These core competencies reflect student performance in 6 key areas: communication, problem solving, clinical skills, medical knowledge, osteopathic medicine and professional and ethical considerations. Your end-of-rotation evaluation from your preceptor will be based directly on your performance in these 6 core competencies as described below.

1. **Communication** - the student should demonstrate the following clinical communication skills:
 - a. Effective listening to patient, family, peers, and healthcare team
 - b. Demonstrates compassion and respect in patient communications
 - c. Effective investigation of chief complaint, medical and psychosocial history specific to the rotation
 - d. Considers whole patient: social, spiritual & cultural concerns
 - e. Efficiently prioritizes essential from non-essential information
 - f. Assures patient understands instructions, consents & medications
 - g. Presents cases in an accurate, concise, well organized manner
2. **Problem Solving** – the student should demonstrate the following problem-solving skills:
 - a. Identify important questions and separate data in an organized fashion; organizing positives & negatives
 - b. Discern major from minor patient problems
 - c. Formulate a differential while identifying the most common diagnoses
 - d. Identify indications for & apply findings from the most common radiographic and diagnostic tests

- e. Identify correct management plan considering contraindications & interaction
- 3. **Clinical Skills** - the student should demonstrate the following problem solving skills:
 - a. Assesses vital signs & triage patient according to degree of illness
 - b. Perform good auscultatory, palpatory & visual skills
 - c. Perform a thorough physical exam pertinent to the rotation
- 4. **Osteopathic Manipulative Medicine** - the student should demonstrate the following skills in regards to osteopathic manipulative medicine
 - a. Apply osteopathic manipulative medicine successfully when appropriate
 - b. Perform and document a thorough musculoskeletal exam
 - c. Utilize palpatory skills to accurately discern physical changes that occur with various clinical disorders
 - d. Apply osteopathic manipulative treatments successfully
- 5. **Medical Knowledge** – the student should demonstrate the following in regards to medical knowledge
 - a. Identify & correlate anatomy, pathology and pathophysiology related to most disease processes
 - b. Demonstrate characteristics of a self-motivated learner including demonstrating interest and enthusiasm about patient cases and research of the literature
 - c. Are thorough & knowledgeable in researching evidence-based literature
 - d. Actively seek feedback from preceptor on areas for improvement
 - e. Correlate symptoms & signs with most common disease
- 6. **Professional and Ethical Behaviors** - the student should demonstrate the following professional and ethical behaviors and skills:
 - a. Is dutiful, arrives on time & stays until all tasks are complete
 - b. Consistently follows through on patient care responsibilities
 - c. Accepts & readily responds to feedback, is not resistant to advice
 - d. Assures professionalism in relationships with patients, staff, & peers
 - e. Displays integrity & honesty in medical ability and documentation
 - f. Acknowledges errors, seeks to correct errors appropriately
 - g. Is well prepared for and seeks to provide high quality patient care
 - h. Identifies the importance to care for underserved populations in a non-judgmental & altruistic manner

III. Rotation Design

A. Educational Modules

Educational modules using lectures, cases, and other forms of delivery are used for third year curriculum. Each student must complete a post-rotation exam to assure that the expected basic content or medical knowledge has been acquired during the rotation. In addition to the experiences received in the clinical training sites, students are expected to read the content of the assigned textbooks and online materials in order to complete the entire curriculum assigned for the clinical module.

B. Formative Evaluation

Student competency-based rating forms are used by the preceptor to evaluate each student's clinical skills and the application of medical knowledge in the clinical setting. These forms are only completed by the clinical faculty member or preceptor. Performance on rotations will be evaluated by the primary clinical faculty member precepting the student. VCOM uses a competency-based evaluation form which includes the osteopathic core competencies. These competencies evaluated include:

- a. Medical knowledge;
- b. Communication;

- c. Physical exam skills;
- d. Problem solving and clinical decision making;
- e. Professionalism and ethics;
- f. Osteopathic specific competencies; and
- g. Additional VCOM values.

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, above 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 to 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 the rotation. This 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.
- Students must learn more than they will experience during clinical rotations. The log does not reflect the totality of the educational objectives during the rotation. Clinical experience is an important part, but only a part, of your rotation requirement. 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 documentation. 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 seriousness 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 final preceptor evaluation form. Students are encouraged to periodically review their VLMS entries with their preceptor during the rotation period.

Throughout the year, data is reviewed by Clinical Affairs, the curriculum committees, and administration to ensure the clinical experiences meet the objectives of the rotation and to assess the comparability of experiences at various sites. The logs serve to:

- Demonstrate student exposure to patients with medical problems that support course objectives.
- Demonstrate level of student involvement in the care of patients.
- Demonstrate student exposure to, and participation in, targeted clinical procedures.

- Demonstrate student exposure to patient populations in both inpatient and outpatient settings.
- 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 during interviews/audition rotations/future credentialing to demonstrate the scope of their clinical experiences.

IV. Credits

MED 8020: 4 credit hours

MED 8025: 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
- Kuchera, Michael, Kuchera, William. *Osteopathic Considerations in Systemic Dysfunction*, Revised 2nd ed., Greyden Press, Dayton, OH: 1994. ISBN:978-1570741548 (retail price \$55.00)
- Maxwell, Robert. *Maxwell Quick Medical Reference*, 7th ed. Minneapolis, MN: Maxwell Publishing Company, 2024. ISBN: 978-0964519169 (retail price \$9.95)
- Nicholas, Alexander, and Evan Nicholas. *Atlas of Osteopathic Techniques*, 4th ed. Baltimore, MD: Lippincott, Williams & Wilkins, 2023. ISBN: 978-1975127480978-1451193411 (retail price \$179.99) – Available in VCOM's eLibrary in LWV Osteopathic Medicine Collection
- Rakel, Robert, and David Rakel. *Textbook of Family Medicine*, 9th ed. Philadelphia, PA: Elsevier, 2015. ISBN: 978-0323239905 (retail price \$179.99) – Available in VCOM's eLibrary in Clinical Key
- Seffinger, Michael. *Foundations of Osteopathic Medicine*, 4th ed. Philadelphia, PA: Wolters Kluwer Health, 2019. ISBN: 978-1496368324 (retail price \$142.99) – Available in VCOM's eLibrary in LWV Osteopathic Medicine Collection
- Wing, Edward J., and Fred Schiffman. Benjamin, Ivor, et al. *Cecil Essentials of Medicine*, 10th ed. Philadelphia, PA: Elsevier, 2021. ISBN: 978-0323722711 (retail price \$89.99) – Available in VCOM's eLibrary in Clinical Key

B. Recommended Textbooks

- Dinulos, J. G. *Habif's Clinical Dermatology*, 7th ed. Philadelphia, PA: Elsevier, 2021 ISBN: 978-0323612692 (retail price \$199.99) – Available in VCOM's eLibrary in Clinical Key

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](#).
- Review of the syllabus topics, learning objectives, and reading assignments:
 - In addition to the learning experience in the clinical site, the clinical curriculum consists of the reading assignments and learning objectives that are included in this syllabus, as well as clinical case modules and Aquifer Radiology cases that are derived from some, but not all, of the learning objectives. A student's success as a physician will depend upon the learning skills they develop during this core rotation, as guided by this syllabus

and clinical case modules. National boards, residency in-training examinations, and specialty board examinations require ever increasing sophistication in student's ability to apply and manipulate medical knowledge to the clinical context.

- Completion and submission of 8 clinical case modules:
 - The clinical case modules were developed by VCOM Discipline Chairs and are intended to provide an OMS 3 student with a clinical, patient-centered approach to the learning content of this rotation. The modules should not be approached as rote learning, but should provide structured, clinically focused learning from the evidence base for this rotation. The same module may be included under multiple topics in the syllabus to show its relevance to the topic, but students only need to complete the module once. The clinical case modules must be submitted in Canvas **by no later than 5 PM on the day of your end of rotation exam** at: <https://canvas.vcom.edu>. **Failure to do so will result in a deduction of 5 points from your end-of-rotation exam score.**
 - [Module 1: Ophthalmology and Oral Cavity/Acute Pharyngitis](#)
 - [Module 2: Thyroid Disorders and Low Back Pain](#)
 - [Module 3: Hypertension, Hyperlipidemia, Cigarette Smoking and Epidemiology](#)
 - [Module 4: Sexually Transmitted Infections, Ethics/Medico Legal Considerations, Population Health and Social Influences of Health](#)
 - [Module 5: Crystal Arthropathies and Spondyloarthropathies, Anemia](#)
 - [Module 6: Headache, Neck Pain, Thoracic Pain, Minor Depression and Mood Disorders in Family Medicine, Integrative Medicine \(Spirituality, Acupuncture, Yoga, and Alternative Medicine\)](#)
 - [Module 7: Dermatology](#)
 - [Module 8: Care of the Elderly](#)
- Completion of 1 Aquifer Radiology case:
 - Aquifer Radiology is a case-based virtual course that provides realistic case scenarios that demonstrate best-practices, helping students develop clinical reasoning skills that bridge the gap from content to practice. Upon completion of the cases, students should have a basic understanding of the principles and applications of medical imaging and be able to interpret common radiological studies in the context of presenting patient conditions. In addition, students should be able to recognize common osteopathic structural and viscerosomatic/somatosomatic changes that correlate to specific radiographic findings.
 - In order to receive credit for the radiology cases and meet the requirements for passing the rotation, students must complete the case, including all associated components of the online program such as the knowledge assessment questions associated with the cases. The same case may be included under multiple topics in the syllabus to show its relevance to the topic, but students only need to complete the case once. Progress will be reviewed by the online administrator to ensure completion of these requirements. Students must successfully complete the case and knowledge assessment questions **by no later than 5 PM on the day of your end of rotation exam.**
 - [Aquifer Radiology Case 13](#)
 - To get full credit for each case completed, please be sure to click forward to the page at the end of the case that states “Summary of Your Case Session” in the upper left-hand corner.
 - Register for the Aquifer cases at: <https://www.aquifer.org>
Your email has been pre-loaded into Aquifer, and you should have received an email about how to set up your account.
 - If you are a first-time user:
 - 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 “Thank you for registering with Aquifer” email with links to tools, resources, and Aquifer news.
 - If you are a returning user:
 - Click “Sign in” in the top right corner.
 - Please log in with your institutional email and account password and click “Sign In”.
- Logging patient encounters and procedures in VLMS:
 - **Students are required to log daily** - Students are **required to log all patient type/clinical conditions and procedures/skills that they encounter that day** into the VLMS application at: <https://vlms.app/login.html>
 - 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 the rotation. This 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.
 - Students should log only an encounter with or exposure to a real patient.
 - Simulated patients, case presentations, videos, grand rounds, written clinical vignettes, etc. should not be logged even though they are all important ways to learn clinical medicine. Many of these educational experiences, along with self-directed reading, are necessary preparation for COMLEX Level 2 and postgraduate training. This log, however, focuses on a unique and critical component of clinical training, namely, involvement with “real” patients.
 - Longitudinal care of a patient that results in a new diagnosis or secondary diagnosis should be entered as a new entry instead of editing the original entry.
 - Multiple encounters with the same patient that do not result in a new diagnosis or procedure should not be logged. However, if multiple encounters result in a new diagnosis or a new procedure is performed, these should be entered as a new entry.
 - Student involvement with patients can occur in various ways with different levels of student responsibility. The most “meaningful” learning experience involves the student in the initial history and physical exam and participation in diagnostic decision making and management. A less involved but still meaningful encounter can be seeing a patient presented by someone else at the 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.
- Failure to log daily results in the following:
 - First notification: Email warning outlining consequences
 - Second notification: Meeting with the Associate Dean
 - Third notification: Behavioral contract
 - Fourth notification: Students will receive an IP “In-Progress” grade for the rotation until logging for the rotation is completed.
 - 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 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 into 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.
- Successful completion of the end-of-rotation written exam:

The content of the end-of-rotation exams will be based upon the learning objectives and reading assignments, including OMM, in this syllabus, the clinical case modules, and the Aquifer Radiology cases and their associated references.

B. Grading

Students must pass both the "module" and "rotation" portions of the course. All rotations have a clinical rotation grade and clinical modules/exam grade. Failure to submit all of the case module files using the Canvas link provided above and the Aquifer Radiology cases **by no later than 5 PM on the day of your end of rotation exam** will result in a **deduction of 5 points from your end-of-rotation exam score**. **VLMS logs are due no later than 5 PM on the day of your end of rotation exam.**

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	Incomplete
B	80-84	3.0	P	Pass	CP	Conditional Pass
C+	75-79	2.5	F	Fail	R	Repeat
C	70-74	2.0			Au	Audit
F	<70	0.0				

C. Remediation

Students who fail a clinical rotation, fail an end-of-rotation exam twice, or who have more than one first attempt failure on end-of-rotation exams within an academic year (even if the student has successfully remediated the prior end-of-rotation exam on the second attempt) will be referred to the Promotion Board. If a student fails the professionalism and ethics portion of the evaluation he or she may be removed from the rotation and referred to the Professional and Ethical Standards Board. No grade will be changed unless the Office of Clinical Affairs certifies to the Registrar, in writing, that an error occurred or that the remediation results in a grade change.

- **Failure of an End-of-Rotation Exam**

Students must pass each end of rotation exam with a C (70%) or better to receive a passing grade for the clinical medical knowledge module. Students who fail an end of rotation exam but pass the clinical rotation evaluation component have a second opportunity to pass the exam within 28 days of notification. If the student passes the remediation exam, the remediated exam grade will be the grade recorded on the transcript and be GPA accountable.

If the student fails the end of rotation exam a second time, the student will receive an “F” grade for the rotation and will be brought before the Promotion Board. If the student is allowed to repeat the rotation, all components of the rotation must be repeated, and the repeated rotation must be with a different preceptor than the one from the original rotation that the student failed. Once repeated, the transcript will show both the initial clinical medical knowledge module course and the initial clinical rotation competency evaluation course, as well as the repeated clinical medical knowledge module course and the repeated clinical rotation competency evaluation course. The repeated courses will have the letter “R” at the end of the course number to reflect that they are repeated. Both the grade earned for the initial courses and the repeated courses will be recorded on the transcript, but only the repeated courses will be GPA accountable, regardless of whether the initial or repeated course grade is higher.

In addition, students who fail more than one first attempt failure of end-of-rotation exams within a semester (i.e. failed the first attempt end-of-rotation exam for pediatrics and failed the first attempt end-of-rotation exam for surgery within the first semester), even if the student has successfully remediated the prior end-of-rotation exam on the second attempt, will be placed on academic probation (at a minimum through their OMS 3 year) by the Campus Dean.

- **Failure of a Rotation**

If a student fails the clinical rotation evaluation the student will receive an “F” grade for the rotation and will be brought before the Promotion Board. If the student is allowed to repeat the rotation, all components of the rotation must be repeated, and the repeated rotation must

be with a different preceptor than the one from the original rotation that the student failed. Once repeated, the transcript will show both the initial clinical medical knowledge module course and the initial clinical rotation competency evaluation course, as well as the repeated clinical medical knowledge module course and the repeated clinical rotation competency evaluation course. The repeated courses will have the letter “R” at the end of the course number to reflect that they are repeated. Both the grade earned for the initial courses and the repeated courses will be recorded on the transcript, but only the repeated courses will be GPA 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 on 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 the clinical chair, the preceptor, and the Promotion Board. Those students who receive a mere “Pass” on multiple rotations will be counseled about overall performance and may be required to complete an additional rotation at the end of the year. Any additional curriculum or required remediation will be based on the performance measure. Those students who continually score 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 may be deemed as not making academic progress and, as a result, may be referred to the Promotion 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 may design a remediation appropriate to correct the behavior or if needed, may refer the student to the Professional and Ethical Standards Board. In the case of repeated concerns in a professional and/or ethical area, the Associate Dean for Clinical Affairs may refer the student to the Campus 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 nature of 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 days and hours to be worked within the rotation period. Students are required to attend any orientation the clinical site sets as mandatory prior to any rotation or the clinical year. The orientation sessions vary by 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, eight-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 the required hours in less than 20 days with the followingspecifications:

- 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 on-call assignments.
- If on-call hours are required, the student should not be on duty for greater than 30 continuous hours.
- Students may be required to work weekends but in general should have 2 weekends per month free and an average of 2 of 7 days per week free.

It should be noted that preceptors will have final determination of the distribution of hours, which may vary from this policy but should not in general be less than 160 hours for a 4-week rotation. The institution's DSME and assigned clinical faculty determine clinical duty hours. Students are responsible to the assigned clinical faculty and are expected to comply with the general rules and regulations established by the assigned clinical faculty, and/or the core hospital(s), or facility associated with the rotation.

The average student clinical day begins at 7 am and ends at 7 pm. Students are expected to work if their assigned clinical faculty is working. Some rotations assign students to shifts and in such cases the student may be required to work evening or night hours. If on-call hours are required, the student must take the call; however, the student should not be on duty for greater than 30 continuous hours. Students may be required to work weekends, but in general should have two weekends per month free and two of seven days per week free. Student holidays are determined by the clinical site and follow those of other students and/or residents from the clinical site. Students must be prompt and on time for the clinical rotation.

Students are expected to arrive on time for all clinical rotations. If a student is late, he or she must notify the site coordinator and the preceptor prior to or at the time they are scheduled to arrive. Students must have a reason for being late such as illness or vehicle issues and it is not anticipated that this would occur more than one occasion AND it is important the student call in prior to being late. Repeated tardiness is considered as unprofessional behavior and is a reason for dismissal from a rotation. Students with repeated tardiness will be referred to the PESB. Tardiness is defined as more than 5 minutes after the scheduled time the preceptor designates as the expected arrival time.

The Office of Clinical Affairs requires that the medical student complete and submit an Excused Absence Clinical Rotations Approval form for any time "away" from clinical rotations. Forms are available at: <https://www.vcom.edu/academics/clinical-education-third-year/forms>. The student must have this form signed by their preceptor and others designated on the form to obtain an excused absence and must be provided to the DSME and the Office of Clinical Affairs through the site coordinator. The form must be completed prior to the beginning of the leave. If an emergency does not allow the student to submit this prior to the absence, the "Excused Absence Clinical Rotations Approval" form must be submitted as soon as the student is physically able to complete the form. In addition to completion of the form, students must contact the Department of Clinical Affairs, the Site Coordinator, and the preceptor's office by 8:30 AM on the day they will be absent due to an illness or emergency. No excused absence will be granted after the fact, except in emergencies as verified by the Associate Dean for Clinical Affairs.

Regardless of an excused absence, students must still complete a minimum of 160 hours for a 4-week rotation in order to pass the rotation. Any time missed must be remediated during the course of the rotation for credit to be issued. Students may remediate up to four missed days or 48 hours missed during any rotation period by working on normal days off. OMS 3 students who have any unexcused absences will be referred to the PESB.

B. Prohibited Use of External Accelerators

At times, there may be lectures on VCOMTV where completion will be documented as part of passing the course (these will be clearly indicated in the course syllabus). For these lectures, the use of an external accelerator is prohibited, as VCOMTV is unable to track completion through these programs. If a student uses an external accelerator for these assignments, they will be required to re-watch the lecture(s) in VCOMTV within the required timeline. Failure to document a student's completion of these assignments within the required timeline due to use of an external accelerator may result in failure of the course.

VIII. Professionalism and Ethics

It is advised that students review and adhere to all behavioral policies including attendance, plagiarism, dress code, and other aspects of professionalism. Behavioral policies may be found in the [College Catalog and Student Handbook](#).

A. VCOM Honor Code

The VCOM Honor Code is based on the fundamental belief that every student is worthy of trust and that trusting a student is an integral component in making them worthy of trust. Consistent with honor code policy, by beginning this exam, I certify that I have neither given nor received any unauthorized assistance on this assignment, where "unauthorized assistance" is as defined by the Honor Code Committee. By beginning and submitting this exam, I am confirming adherence to the VCOM Honor Code. A full description of the VCOM Honor Code can be found in the [College Catalog and Student Handbook](#).

IX. Syllabus and Rotation Schedule

Please use this syllabus as a guide, paying particular attention to the learning objectives as an outline of what you are expected to know for each topic/module. Refer to the rotation calendar for specific dates of exams.

The faculty of the course will make every effort to adhere to the syllabus and rotation schedule; however, the Office of Clinical Affairs reserves the right to make changes to the syllabus; including changes to examinations, quizzes, modules, homework or other assignments; and/or the schedule with as much advance notice as possible. These changes will be communicated to the students in writing via Canvas or email.

X. Family Medicine Clinical Curriculum

In addition to the topics below with reading references and learning objectives, students must also complete the assigned clinical cases and the assigned Aquifer Radiology cases. The content of the end-of-rotation exams will be based upon the learning objectives and reading assignments, including OMM, in this syllabus, the clinical case modules, and the Aquifer Radiology cases and their associated references. The clinical case modules must be submitted in Canvas at: <https://canvas.vcom.edu>

1. Population Health and Social Influences of

Health Reading Assignments:

- <https://www.youtube.com/watch?v=8PH4JYff4Ns>
- <https://health.gov/healthypeople/objectives-and-data/browse-objectives>

Module: [Module 4: Sexually Transmitted Infections, Ethics/Medico Legal Considerations, Population Health and Social Influences of Health](#)

Learning Objectives:

- a. Identify the relationships and linkages between population health, public health, and clinical care.
- b. Recall the leading and underlying causes of death in the US.
- c. Identify factors that play a role in disease trends.

- d. Recognize the purpose and progress of the Healthy People 2030 framework.
- e. Define health disparities.
- f. Recall and list examples of health disparities in the US.
- g. Define health equity.
- h. Relate health equity to health disparities in the US.
- i. Define and list examples of the determinants of health.
- j. Recognize the influence of social determinants of health on clinical decisionmaking.
- k. Identify the influence of social determinants on health outcomes.

2. Hypertension: Guidelines and

Diagnosis Reading Assignments:

- Rakes Textbook of Family Medicine, Chapter 27, pages 514-526
- <https://www.acc.org/latest-in-cardiology/ten-points-to-remember/2017/11/09/11/41/2017-guideline-for-high-blood-pressure-in-adults>
- <https://www.ahajournals.org/doi/10.1161/CIRCRESAHA.119.314789>
- <http://thepafp.org/website/wp-content/uploads/2017/05/2014-JNC-8-Hypertension.pdf>
- <https://www.acponline.org/acp-newsroom/acp-and-aafp-release-guideline-for-treatment-of-hypertension-in-adults-60-years-old-and-older>

Module: [Module 3: Hypertension, Hyperlipidemia, Cigarette Smoking and Epidemiology](#)

Learning Objectives:

- a. Recognize the nationally accepted guidelines for screening, diagnosing, and staging the severity of hypertension using JNC-8.
- b. Recognize the nationally accepted guidelines for screening, diagnosing, and staging the severity of hypertension using ACC (American College of Cardiology)/AHA (American Heart Association).
- c. Recognize the recommendation from the American College of Physicians and American Academy of Family Physicians.
- d. Identify and list appropriate elements of a comprehensive physical examination in hypertensive patients, including proper techniques in blood pressure measurement.
- e. Recall recommended laboratory studies for an uncomplicated new hypertensive patient on initial visit.
- f. Assess elements of lifestyle modification (including health education and behavioral change strategies) for hypertensive patients.
- g. Formulate patient education on dietary and lifestyle changes needed to reduce risk of hypertension and metabolic syndrome.
- h. Recognize updated hypertension recommendations based on the most recent guidelines.
- i. Identify indications and contraindications of each class of antihypertensive agents.
- j. Recall what medications are considered first line therapy.

3. Hyperlipidemia: Guidelines and

Diagnosis Reading Assignment:

- Rakes Textbook of Family Medicine
 - Chapter 27, pages 504-513
 - Chapter 32 (General Internal Medicine: Dyslipidemia)
- <https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/statin-use-in-adults-preventive-medication1>
- <http://tools.acc.org/ASCVD-Risk-Estimator-Plus/#!/calculate/estimate/>
- <https://www.acc.org/latest-in-cardiology/ten-points-to-remember/2018/11/09/14/28/2018-guideline-on-management-of-blood-cholesterol>

Module: [Module 3: Hypertension, Hyperlipidemia, Cigarette Smoking and Epidemiology](#)

Learning Objectives:

- a. Recognize the risk factors for the development of atherosclerosis.

- b. Identify all coronary artery disease risk equivalents and use ASCVD risk calculator.
- c. Recall the primary and secondary goals of therapy for dyslipidemia.
- d. Develop appropriate patient education regarding therapeutic lifestyle changes and the health implications of obesity.
- e. Recall the role of statins in primary and secondary therapy.
- f. Recognize the mechanism of action and side effects of statin therapy.
- g. Recognize the action, benefits, and side effects of other classes used in management of dyslipidemia.
- h. Recognize clinical signs of hypercholesterolemia.
- i. Distinguish physical findings of hypercholesterolemia.
- j. Differentiate the etiologies of primary and secondary dyslipidemias in adults.
- k. Devise screening recommendations for dyslipidemias in adults.

4. Skin Lesions, Skin Cancers, and Skin Biopsy

Reading Assignment: Rakel Textbook of Family Medicine, Chapter 33, pages 773-781

Module: [Module 7: Dermatology](#)

Learning Objectives:

- a. Differentiate physical characteristics of seborrheic keratosis from melanoma.
- b. Contrast the physical characteristics and prognosis of seborrheic keratosis and actinic keratosis.
- c. Contrast management of seborrheic keratosis and actinic keratosis.
- d. Recognize the physical characteristics of basal cell carcinoma and the indications for Mohs surgery.
- e. Recognize the physical characteristics of squamous cell carcinoma and treatment modalities.
- f. Recognize the physical characteristics of melanoma and risk factors for development.
- g. Recall the most important prognostic indicator in the treatment of melanoma.
- h. Define terms that describe the morphology, shape, and pattern of skin lesions.
- i. Utilize the ABCDE criteria for the evaluation of hyper pigmented lesions as possible melanoma.
- j. Discriminate common biopsy procedures including shave biopsy, punch biopsy, incisional and excisional biopsies.
- k. Develop patient education on the importance and methods of prevention of skin cancers.

5. Headache (HA), Including Migraines

Reading Assignment:

- Rakel Textbook of Family Medicine, Chapter 41, pages 999-1004
- Somatic Dysfunction in Osteopathic Family Medicine, Chapter 35, pages 399-414

Module: [Module 6: Headache, Neck Pain, Thoracic Pain, Minor Depression and Mood Disorders in Family Medicine, Integrative Medicine \(Spirituality, Acupuncture, Yoga, and Alternative Medicine\)](#)

Learning Objectives:

- a. Distinguish between primary and secondary headaches using history findings including sinus, tension, migraine, and cluster headaches.
- b. Recall the differential diagnosis and pathophysiology associated with headaches.
- c. Infer the components of the history of the patient that presents with the complaint of headache.
- d. Recognize the diagnostic criteria for each of the primary headache types.
- e. Distinguish headaches associated with Giant Cell Arteritis versus primary headaches.
- f. Choose the appropriate physical examination techniques for a patient presenting with headache.
- g. Identify appropriate indications for ordering imaging tests on a patient who presents with headache.
- h. Formulate an acute treatment plan for each of the primary headaches.
- i. Infer when a patient requires prophylaxis for headaches.
- j. Formulate a prophylactic treatment plan for chronic primary headaches.
- k. Identify each component of the “five model” Osteopathic approach to patient care when using

osteopathic manipulative medicine in the treatment of headaches.

- l. Identify specific indications and contraindications for OMM in headache patients.
- m. Recall the typical somatic dysfunctions associated with the primary headache types and their osteopathic treatment (Cervicogenic, Sinus, Tension, Migraine, and Cluster).
- n. Identify the primary headache and counsel a patient on the appropriate prevention, holistic care, and treatment of the somatic dysfunction associated with the headache.
- o. Utilize osteopathic manipulative techniques to improve the somatic component of the headache:
 - i. Direct Techniques
 - A. Scalene ME
 - B. Trapezius Inhibition
 - C. Soft tissue and MFR Rib Raising -seated
 - D. Suboccipital release
 - E. Venous Sinus Technique
 - F. MFR Linea Alba
 - G. Pectoral Traction
 - H. Direct MFR horizontal diaphragms
 - I. Sacral Rocking
 - J. ME Pubic symphysis
 - K. Direct MFR Pelvic floor
 - ii. Indirect Techniques
 - A. Counterstrain Pectoralis m.
 - B. CV4
 - C. Indirect MFR horizontal diaphragms
- p. Develop self-care techniques for patients to use outside the office to help treat headaches.

6. Ophthalmology and the Family Medicine Patient

Reading Assignment:

- Raket Textbook of Family Medicine, Chapter 17, pages 274- 304
- <https://nccih.nih.gov/>

Module: [Module 1: Ophthalmology and Oral Cavity/Acute Pharyngitis](#)

Learning Objectives:

- a. Utilize a complete physical exam of the eye, including use of handheld ophthalmoscope to determine causes of 'Red Eye.'
- b. Assess the need for referral in evaluation of the following conditions:
 - i. Reduced Vision
 - ii. Pain
 - iii. Photophobia
 - iv. Corneal Staining
 - v. Corneal edema
 - vi. Unequal pupils
 - vii. Elevated intraocular pressure
- c. Differentiate symptoms of conjunctivitis to help determine viral, bacterial, versus allergic causes.
- d. Recall the proper management of styes, chalazions, and blepharitis.
- e. Identify the common causes of dry eyes and appropriate treatment.
- f. Recall the leading causes of reduced vision in the United States and appropriate screening and treatment for:
 - i. Cataracts
 - ii. Glaucoma
 - iii. Macular Degeneration

- iv. Diabetic Retinopathy
- g. Differentiate between open-angle and angle-closure glaucoma and when emergent referral is needed.
- h. Recall the ophthalmologic symptoms of Giant Cell Arteritis and the treatment.
- i. Utilize presenting symptoms of vision loss to develop a differential for the patient with sudden vision loss.
- j. Recall specific treatment options for varying causes of vision loss including nutritional supplements.
- k. Develop patient education on the proper use of antibiotic eye drops in the treatment of conjunctivitis.

7. Oral Cavity and Acute Pharyngitis

Reading Assignment: Rakel Textbook of Family Medicine, Chapter 18, pages 336-345

Module: [Module 1: Ophthalmology and Oral Cavity/Acute Pharyngitis](#)

Learning Objectives:

- a. Identify the viral and the bacterial causes of acute pharyngitis.
- b. Apply treatment options and physical examination findings for Group A beta hemolytic streptococcus (GABHS) and how to define a carrier.
- c. Recall the Centor criteria for GABHS.
- d. Recognize dysphagia, medication induced esophagitis, and globus hystericus.
- e. Recall the elements of an obstructive sleep apnea (OSA) study, the symptoms of OSA and the chronic illnesses associated with OSA.
- f. Recognize the causes of laryngitis and hoarseness, and treatment guidelines.
- g. Identify the symptoms and treatment of reflux laryngitis.
- h. Assess how to evaluate a patient with pharyngitis, including appropriate history and physical examination, use of clinical prediction rules and appropriate antibiotic use.
- i. Recall complications of Group A beta-hemolytic streptococcal pharyngitis.
- j. Recall how to identify and treat mononucleosis.
- k. Relate the avoidance of activity restrictions during the treatment of mononucleosis.

8. Thyroid Disorders

Reading Assignment: Rakel Textbook of Family Medicine, Chapter 35, pages 828-839

Module: [Module 2: Thyroid Disorders and Low Back Pain](#)

Learning Objectives:

- a. Recall the roles of the thyroid hormones (TSH, T4, T3) in the diagnosis of thyroid disorders.
- b. Identify the correct algorithm for diagnosing thyroid disorders.
- c. Recognize when to refer to endocrinology for further work-up of thyroid disorders.
- d. Recall the treatment for primary hypothyroidism.
- e. Identify when a patient may have sub-clinical hypothyroidism and its clinical significance.
- f. Recall the pathogenesis of Graves' disease.
- g. Utilize physical examination findings to help diagnose hyperthyroidism.
- h. Identify the most common cause of hypothyroidism in the United States as well as the role of iodine deficiency in hypothyroidism.
- i. Recognize when to consider biopsies for nodules and cysts of the thyroid gland.
- j. Recall the common medications which may affect thyroid function.
- k. Develop patient education on the signs and symptoms of over-treatment of hypothyroidism.

9. Neck and Thoracic Back

Pain Reading Assignment:

- Rakel Textbook of Family Medicine
 - Chapter 31, pages 684-696
- Somatic Dysfunction in Osteopathic Family Medicine
 - Chapter 35, 407-413
 - Chapter 38, pages 443-452
- Foundations of Osteopathic Medicine
 - Chapter 33, pages 787-791
 - Chapter 34, pages 797-803
 - Chapter 35, pages 813-826
 - Chapter 36, pages 835-851
 - Chapter 37, pages 864-879

Online Case: [Aquifer Radiology Case 13](#)

Module: [Module 6: Headache, Neck Pain, Thoracic Pain, Minor Depression and Mood Disorders in Family Medicine, Integrative Medicine \(Spirituality, Acupuncture, Yoga, and Alternative Medicine\)](#)

Learning Objectives:

- a. Utilize the osteopathic evaluation and work up of cervical and thoracic back pain.
- b. Identify each component of the “five model” Osteopathic approach to patient care when using osteopathic manipulative medicine in the treatment of cervical and thoracic back pain.
- c. Recall the most common causes for cervical and thoracic back pain seen in family medicine, predisposing factors and significance of psychosocial factors.
- d. Recall the osteopathic physical examination, including posture, to differentiate causes for cervical and thoracic pain.
- e. Develop an appropriate structure-function approach to differential diagnosis of cervical and thoracic back pain and identify potential neck pain generators.
- f. Recognize the clinical signs and symptoms associated with disc herniation syndromes and when to refer for surgical evaluation.
- g. Recognize the clinical signs, symptoms and treatment of compression fractures and spinal stenosis.
- h. Recognize the red flag/alarm symptoms for serious causes for cervical and thoracic pain.
- i. Identify the criteria for ordering imaging studies and when imaging is indicated.
- j. Compare and contrast the terms osteoporosis, osteopenia, and osteomalacia, as well as which patients should be screened.
 - i. Explain the meaning of T and Z scores on bone mineral density reports.
 - ii. Recognize radiation doses among common radiological exams.
- k. Recognize the typical appearance of osteoporotic compression fractures of the spine on radiographs.
- l. Describe indications for vertebroplasty.
- m. Discuss the indications for referral to a spine or pain specialist for further evaluation and management of acute neck pain.
- n. Recognize and identify an appropriate use of OMT in acute neck pain.
- o. Utilize osteopathic manipulative techniques to improve the somatic dysfunction component of neck pain:
 - i. Direct Techniques
 - A. Direct MFR to suboccipital m.
 - B. Soft Tissue to cervical paraspinal m.
 - C. ME to cervical vertebrae
 - D. HVLA to cervical vertebrae
 - ii. Indirect Techniques

- A. Counterstrain to cervical area
- p. Apply osteopathic examination findings with clinical findings and symptoms to diagnose rib dysfunction or fracture.
- q. Utilize muscle energy and counterstrain to treat a patient with rib dysfunction.
- r. Apply muscle energy, suboccipital release, counterstrain, soft tissue manipulation, myofascial release and HVLA in the patient with cervical neck pain.
- s. Develop patient education on holistic care, home exercise, and home therapies for neck and thoracic back pain including cervical sprain and whiplash syndromes.

10. Low Back Pain/Lumbosacral

Reading Assignment:

- Rakel Textbook of Family Medicine, Chapter 31, pages 684-698
- Foundations of Osteopathic Medicine, Chapter 28 F, pages 643-654

Module: [Module 2: Thyroid Disorders and Low Back Pain](#)

Learning Objectives:

- a. Summarize the AOA recommended parameters for frequency of the application of OMM for patients with acute low back pain.
- b. Define acute, subacute and chronic low back pain.
- c. Utilize each component of the “five model” osteopathic approach for evaluation and work up of low backpain.
- d. Identify the most common cause of back pain seen in family medicine, predisposing factors and significance of psychosocial factors.
- e. Recall the osteopathic physical examination necessary to differentiate causes for low back pain and differential diagnosis of low back pain including mechanical and non-mechanical etiologies, psoas, piriformis, and sacroiliac joint pain.
- f. Recognize the value of diagnostic testing based on the American College of Physicians and the American Pain Society and describe routine treatment for low back pain.
- g. Recognize the clinical signs and symptoms associated with disc herniation syndromes and when to refer for surgical evaluation.
- h. Identify the clinical signs, symptoms, and treatment of lumbar compression fractures, spinal stenosis, and scoliosis.
- i. Recognize the red flags/alarm symptoms for serious causes for low back pain.
- j. Apply osteopathic physical examination findings to develop appropriate treatment for back pain.
- k. Utilize osteopathic manipulative techniques to improve the somatic dysfunction component.
 - of neck pain:
 - i. Direct Techniques
 - A. ME Psoas
 - B. Soft Tissue to lumbar paraspinal m.
 - C. MFR to lumbar paraspinal
 - D. ME to lumbar
 - E. HVLA to lumbar
 - F. Visceroabdominal ganglion technique
- l. Develop patient education on self-care, holistic care, home exercises, and other home treatments for low back pain.

11. Ethics/Medical Legal Considerations

Reading Assignment: [Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine, Topics One and Two](#)

Module: [Module 4: Sexually Transmitted Infections, Ethics/Medico Legal Considerations, Population Health and Social Influences of Health](#)

Learning Objectives:

- a. Recognize patient rights in the regards to confidentiality.
- b. Identify indications for public reporting and knowing state by state variations exist.
- c. Define “capacity” in the setting of patient decision making.
- d. Recognize the utility of a Durable Power of Attorney and a Living Will.
- e. Identify principles of informed consent and assent.
- f. Recognize the legal rights that minors have regarding sexual health.
- g. Explain and apply the ethical principle of:
 - i. autonomy
 - ii. beneficence
 - iii. non-maleficence
 - iv. fidelity
 - v. justice
 - vi. utility
- h. Define the four criteria for negligence:
 - i. duty of care
 - ii. breach of duty
 - iii. causation
 - iv. damages

12. Smoking and Associated Risk

Reading Assignment: Rakel Textbook of Family Medicine, Chapter 49, pages 1133-1150

Module: [Module 3: Hypertension, Hyperlipidemia, Cigarette Smoking and Epidemiology](#)

Learning Objectives:

- a. Relate pathologic basis of smoking and its effect on tissues.
- b. Infer the morbidity and mortality associated with tobacco and marijuana use in relation to the following disease processes:
 - i. Cancer
 - ii. Pulmonary disease
 - iii. Cardiovascular disease
 - iv. Alzheimer disease
 - v. Endocrine diseases
 - vi. Skin aging
 - vii. Visual disease
 - viii. Mental health disease
- c. Infer the risks associated with:
 - i. Smokeless tobacco
 - ii. Passive tobacco smoke exposure
 - iii. Vaping
 - iv. Marijuana use
 - v. Passive marijuana smoke exposure
- d. Infer the pharmacologic effects of the following medications used to assist with smoking cessation:
 - i. Bupropion
 - ii. Nicotine replacement
 - iii. Varenicline
- e. Select the most appropriate medication to assist a patient in smoking cessation based on the patient’s medical history.

- f. Develop patient education on community opportunities to help smoking cessation.
- g. Recall the stages of change in respect to the patient's desire to stop smoking.

13. Sexually Transmitted Infections

Reading Assignment:

- Beckmann and Ling's Obstetrics and Gynecology, Chapter 29, pages 250-261
- Rakel Textbook of Family Medicine, Chapter 15, pages 215-218
- https://www.vdh.virginia.gov/content/uploads/sites/13/2018/11/Reportable_Disease_List.pdf
- [https://www.alabamapublichealth.gov/infectiousdiseases/report.html#:~:text=Immediate%2C%20Extremely%20Urgent%20Diseases%2FConditions,%2D8374\)%2C%20or%20fax.](https://www.alabamapublichealth.gov/infectiousdiseases/report.html#:~:text=Immediate%2C%20Extremely%20Urgent%20Diseases%2FConditions,%2D8374)%2C%20or%20fax.)
- [STD List | La Dept. of Health](#)
- <https://scdhec.gov/sites/default/files/Library/CR-005869.pdf>

Module: [Module 4: Sexually Transmitted Infections, Ethics/Medico Legal Considerations, Population Health and Social Influences of Health](#)

Learning Objectives:

- a. Describe the guidelines for STI screening and partner notification including HIV.
- b. List the causative pathogens of common STI's.
- c. Describe the symptoms and physical exam findings associated with common STI's.
- d. Discuss the steps in the evaluation and initial management of common STI's.
- e. Review the CDC guidelines for treating the following sexually transmitted infections:
 - i. Chlamydia
 - ii. Gonorrhea
 - iii. Syphilis
 - iv. Chancroid
 - v. Trichomoniasis
 - vi. HSV
- f. Recognize the most common side effects and drug interactions of the antimicrobials used in the treatment of STI's.
- g. Develop plan for STI prevention.

14. Crystal Arthropathies and Spondyloarthropathies

Reading Assignment: Rakel Textbook of Family Medicine, Chapter 32, pages 718-724

Module: [Module 5: Crystal Arthropathies and Spondyloarthropathies, Anemia](#)

Learning Objectives:

- a. Recognize the signs and symptoms of gout.
- b. Recall the most important factors in the development of acute gouty arthritis.
- c. Identify the causes of secondary gout.
- d. Define the mechanism of action of Allopurinol and use in the prophylaxis of gout.
- e. Recognize the diseases associated with calcium pyrophosphate deposition disease.
- f. Formulate an evaluation for a suspected new diagnosis of calcium pyrophosphate deposition disease.
- g. Recognize the signs and symptoms of ankylosing spondylitis and the classic radiographic appearance.
- h. Recall the classic triad of reactive arthritis and the suggested causes.
- i. Develop a differential diagnosis for knee pain in an adult.
- j. Recall the risk factors associated with osteoarthritis.
- k. Recognize diagnostic findings which support a diagnosis of osteoarthritis.
- l. Formulate an appropriate treatment plan for osteoarthritis, including medications and lifestyle modifications.
- m. Recognize the utility of Osteopathic techniques to help with the treatment of osteoarthritis.

- n. Select and recognize when imaging and referral to specialists are appropriate in arthritis.
- o. Develop patient education on the different classes of medications useful for the treatment of chronic pain and their common side effects.
- p. Describe the common imaging findings in rheumatoid arthritis and how it differs from degenerative osteoarthritis.

15. Anemia

Reading Assignment:

- Rakel Textbook of Family Medicine, Chapter 14, pages 165, 170
- Rakel Textbook of Family Medicine, Chapter 39, pages 948-955
- Cecil Essentials of Medicine, 10th ed., Chapter 48, pages 489-500

Module: [Module 5: Crystal Arthropathies and Spondyloarthropathies, Anemia](#)

Learning Objectives:

- a. Define anemia in terms of peripheral blood smear findings and their association.
- b. Recognize the following peripheral smear findings and their diagnostic correlation.
 - i. Normal red blood cells
 - ii. Hypochromic and microcytic red blood cells
 - iii. Sickle cells
 - iv. Spherocytosis
 - v. Reticulocytosis
 - vi. Tear drop cells
 - vii. Target cells
- c. Relate the utility of a reticulocyte count in determining a differential diagnosis for the cause of anemia.
- d. Recall the diagnostic characteristics of the anemias listed below:
 - i. Macrocytic
 - ii. Microcytic
 - iii. Normocytic
- e. Formulate a differential diagnosis for macrocytic, microcytic, and normocytic anemia.
- f. Identify the appropriate laboratory studies to differentiate the cause of anemia.
- g. Recognize the physical signs of anemia.
- h. Differentiate the pathophysiologic causes of the following anemias:
 - i. Thalassemia
 - ii. Sickle cell anemia
 - iii. Pernicious anemia
- i. List the associated major complications of sickle cell disease related to underlying pathophysiology.
- j. Recognize treatment options for sickle cell disease in the acute crisis and chronic maintenance stages.

16. Non-infectious Dermatitis

Reading Assignment: Rakel Textbook of Family Medicine, Chapter 33, pages 740-756

Module: [Module 7: Dermatology](#)

Learning Objectives:

- a. Define dermatitis.
- b. Contrast seborrheic dermatitis, atopic dermatitis and contact dermatitis.
- c. Distinguish the differential diagnosis for allergic contact dermatitis.
- d. Formulate the most appropriate treatment plan for a patient with contact dermatitis.
- e. Discuss the etiology of atopic dermatitis.
- f. Identify the clinical manifestations of atopic dermatitis.
- g. Select the most appropriate treatment recommendations for atopic dermatitis.
- h. Predict the benefits of appropriate skin care and moisturizing for decreasing flares of atopic

- dermatitis.
- i. Discuss the differential diagnosis for nummular eczema and its manifestations.
- j. Develop patient education on the best prevention and treatment of stasis dermatitis.
- k. Differentiate stasis dermatitis from cellulitis.
- l. Recognize the physical findings of varying categories of psoriasis.
- m. Recall treatment options for psoriasis.

17. Epidemiology and Interpreting Medical Literature

Reading Assignment:

- Rakel Textbook of Family Medicine, Chapter 9, pages 110-115

Module: [Module 3: Hypertension, Hyperlipidemia, Cigarette Smoking and Epidemiology](#)

Learning Objectives:

- a. Define and interpret the following statistical measurements:
 - i. Sensitivity
 - ii. Specificity
 - iii. Positive Predictive value
 - iv. Negative Predictive value
 - v. Likelihood ratio
- b. Recognize how the statistical measurements above affect the utility of a given test and its ability to evaluate for the presence or absence of disease.
- c. Relate and breakdown the concept of continuous variables in clinical tests.
- d. Predict the effects of increasing and decreasing the abnormal cut-off values for a given test, specifically in terms of the resulting sensitivity and specificity.
- e. Recognize the importance of a pretest probability when applying test results to patient care.
- f. Identify the principles of screening which are widely accepted.
- g. Differentiate between lead-time bias and length bias.
- h. Relate how lead-time and length bias pertain to screening tests and how they may make a test appear to perform better than it actually does.
- i. Differentiate the statistical significance of study results utilizing Relative Risk (RR), Absolute Risk (AR), Number Needed to Treat (NNT) and Number Needed to Harm (NNH).
- j. Contrast patient-oriented outcomes to disease-oriented outcomes.

18. Minor Depression and Mood Disorders in Primary

Care Reading Assignment:

- Rakel Textbook of Family Medicine, Chapter 46, pages 1090-1107

Module: [Module 6: Headache, Neck Pain, Thoracic Pain, Minor Depression and Mood Disorders in Family Medicine, Integrative Medicine \(Spirituality, Acupuncture, Yoga, and Alternative Medicine\)](#)

Learning Objectives:

- a. Recall the diagnostic criteria for major depressive disorder (MDD).
- b. Recall how to use the history, physical, and diagnostic test to rule out medical causes of depressive symptoms.
- c. Recall screening tools used in the primary care setting.
- d. Recall the prevalence of mood disorders in the primary care setting.
- e. Identify the effects of depression on the patient's family.
- f. Select the common therapeutic options for MDD and their side effects.
- g. Judge how a patient's culture can affect the evaluation and treatment of mood disorders.
- h. Differentiate between MDD, Dysthymic Disorder, and GAD.
- i. Discuss the medication classes used to treat mood disorders, their indication, side effects, and potential for abuse.
- j. Recall the indications for the use of benzodiazepines and potential side effects.

19. Integrative Medicine

Reading

Assignment:

- Raket Textbook of Family Medicine, Chapter 12, pages 126-140
- Somatic Dysfunction in Osteopathic Family Medicine, Chapter 8, pages 71-84
- <https://nccih.nih.gov/>

Module: [Module 6: Headache, Neck Pain, Thoracic Pain, Minor Depression and Mood Disorders in Family Medicine, Integrative Medicine \(Spirituality, Acupuncture, Yoga, and Alternative Medicine\)](#)

Learning Objectives:

- a. Discuss the five categories or domains of CAM and what two subgroups could these approaches fall into.
- b. Describe the core elements of integrative medicine.
- c. Describe the differences among spirituality, religion, and prayer.
- d. Recall various models for taking a spiritual history.
- e. Describe the similarities and differences among acupuncture points, tender points, trigger points, counterstrain points, and Chapman's points.
- f. Discuss homeopathy and the homeopathy-osteopathy connection.
- g. Recall other modalities that can be used for patient wellness and alternative therapies including but not limited to yoga, tai chi, qigong, Rolfing, nutrition therapy, and aromatherapy.
- h. Identify the definition of a dietary supplement and distinguish between pharmaceuticals, nutraceuticals, and functional and medicinal foods.
- i. Recognize the potential hazards of ginkgo biloba, St. John's Wort, ginseng, and kava.
- j. Recognize the potential for supplement interactions with prescribed medications.
- k. Discuss various treatments, supplements, and side effects across CAM fields.

20. Care of the Elderly Patient

Reading Assignment: Raket Textbook of Family Medicine, Chapter 4, pages 34-48

Module: [Module 8: Care of the Elderly](#)

Learning Objectives:

- a. Recognize the impact of age-related changes on drug selection and dose based on knowledge of age-related changes in:
 - i. Renal
 - ii. hepatic function
 - iii. GI Function
 - iv. body composition
 - v. central nervous system sensitivity
- b. Appraise functional ability of the elderly.
- c. Contrast Basic ADLs and instrumental ADLs.
- d. Identify aging changes associated with safety concerns and fall risk.
- e. Recall the screening tools to identify fall risk including the "Get up and go" test.
- f. Incorporate adaptive interventions and involvement of interdisciplinary team in care of the elderly to prevent falls.
- g. Recall the components of proper wellness history and exam for elderly patients.
- h. Define and recognize types of elder abuse and their symptoms:
 - i. physical elder abuse
 - ii. psychological abuse
 - iii. financial exploitation of the elderly
- i. Recall the component required for an appropriate evaluation and documentation in the setting of suspected elder abuse.
- j. Define the role of and legal ramifications for being mandated reporters of elder abuse.
- k. Recall the roles of Adult Protective Services in elder abuse.