Edward Via College of Osteopathic Medicine

3rd Year Clinical Rotation: Foundations of Diagnostic Medicine

ROTATION SYLLABUS

Kayron Campbell
Clinical Assessment Coordinator
Auburn Campus
Phone: 334-442-4071
kcampbell@auburn.vcom.edu

Sena Mazzoleni
Clinical Assessment Coordinator
Carolinas Campus
Phone: 864-327-9994
cmazzoleni@carolinas.vcom.edu

Laura Robinson
Clinical Assessment Coordinator
Virginia Campus
Phone: 540-231-0915
lrobinson@vcom.vt.edu

I. Rotation Description

The Foundations of Diagnostic Medicine (FDM) clinical rotation is a comprehensive curriculum designed to assist students in improving their mastery of core fundamental concepts in the area of diagnostic medicine. The first portion of the curriculum consists of 3 major components: the MedU CORE cases in diagnostic radiology, the Choosing Wisely ® Physician Communication Modules, and the Stanford 25 Physical Exam Review Modules.

In addition to the above diagnostic modules, the FDM rotation also incorporates an online educational curriculum on the safe prescribing of opioids for pain and the management of patients with pain who abuse prescription drugs. This component of the FDM curriculum utilizes courses developed by the National Institute on Drug Abuse (NIDA) and Medscape Education, with funding from the White House Office of National Drug Control Policy regarding.

Finally, all students must participate in their regular Osteopathic Manipulative Medicine (OMM) workshops scheduled during their FDM month. The Foundations of Diagnostic Medicine Course will appear on the transcript and grading will occur using a Pass/Fail designation. In order to receive a passing grade, students must complete all components of the program in their entirety.

II. 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 all components of each module to assure that the expected basic content or medical knowledge has been acquired during the rotation.

B. OMM Practical Curriculum and Hands-on Workshops

An important component of student medical education during the OMS-3 year involves OMM principles and techniques learned in the OMM lecture and laboratory settings in the first and second years being applied to didactic assignments and patient assessment and management in the third year. The integration of OMT into patient care occurs at the bedside with the precepting physician. The main component of the OMS-3 OMM practical / hands-on curriculum occurs in the form of monthly OMM workshops.

Each clinical site will provide an OMM hands-on workshop during designated clinical rotation months. The date and time of that workshop will be site dependent and based on factors such as facility and preceptor availability.

VCOM will provide an OMM workshop at both the Virginia and Carolinas campus on the last Friday of designated clinical rotations following the end of rotation exam. There will be no less than nine workshops, each on a different topic, given during the OMS-3 year. This workshop is designed for both third year students who missed the workshop in their assigned region or for those students in a region who was unable to provide a workshop during the designated month. All students are free to attend both the workshop in their region, as well as the OMM workshop held at VCOM; however, students who do not have the opportunity to attend an OMM workshop in their assigned region for the month must return to VCOM for the monthly session. See the VCOM website at: www.vcom.edu/academics/omm-workshops for the OMM Workshop Schedule for the academic year.

OMM workshop attendance is mandatory for all third year students on clinical rotations unless an excused absence is obtained. OMS-3 students who miss the required workshops without an excused absence will be called to Promotion Board as is consistent with the policy for any unexcused absence on clinical rotations. Any OMS-3 student who misses a monthly OMM hands-on workshop will be required to make the session up at a time and location established by VCOM prior to promotion to the OMS-4 year.

III. Credits

2.5 credit hours

IV. Course Grading and Requirements for Successful Completion

A. Requirements

- Completion of all CORE radiology cases and associated knowledge assessment questions.
    - Your progress will be reviewed by the online administrator to ensure you have completed the program in its entirety. Students must successfully complete all the CORE cases and knowledge assessment questions by the last day of their FDM rotation.
    - Register for the MedU Cases
        - Go to https://www.meduapp.com
        - Click "Log in"
            - If you are a first-time user:
                - Click "Need Access OR Forgot your Password"

- Type in your VCOM email address into the email box.
- Click "Send me instructions to set my password".
- An email will be sent to you. Follow the instructions in the email to setup your account.

❖ If you are a returning user:

- Type in your VCOM email address into the email box.
- Type in the password you selected in the password box.
- Click "Sign in".

- Completion of all 10 Choosing Wisely ® Physician Communication Modules and associated content.
  - Students must successful complete the end-of-rotation exam, derived from this module, with a grade of 70% or better.
- Review of all of the Stanford Medicine 25 Physical Exam modules and accompanying videos
  - Students will be asked to verify, under the VCOM Honor Code, their completion of all assigned modules.
- Completion of the Opioid and Pain Management Educational Modules
  - Students will be asked to verify, under the VCOM Honor code, their completion of all assigned modules.
- Attendance of at least one OMM workshop during the month and submission of an OMM workshop log documenting the student's participation. Attendance according to VCOM and preceptor requirements as defined in the College Catalog and Student Handbook.

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. The clinical rotation grade uses the Honors, High Pass, Pass, Fail system; these grades are not calculated in the GPA. The rotation modules are assigned an exam grade.

Clinical Grading Scale and GPAs				
OMS 3 End-of-Rotation Exam Grade			**OMS 3 Traditional Rotation Grades**	
A	90-100	4.0	H	Honors
B+	85-89	3.5	HP	High Pass
B	80-84	3.0	P	Pass
C+	75-79	2.5	F	Fail
C	70-74	2.0	IP	In Progress
F	<70	1.0		
IP	Incomplete	0.0		

B. Remediation

Students who fail one or more rotations or more than one post-rotation exam will be reviewed and referred to the Promotion 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. A student may appeal to the Campus Dean for consideration only after the Promotion Board has met and only if new and meaningful information exists for the appeal. 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 Professionalism and Ethics Standards Board.

- **Failure of a Post Rotation Exam**
  Failures of a module or post-rotation exam have a second opportunity to pass the exam within 30 days of notification. If the student fails the second attempt at the post-rotation exam, an F is recorded on the module/exam grade, and the rotation must be repeated.

- **Failure to Make Academic Progress**
  Any additional curriculum or required remediation will be based on the performance measure. In general, rotations should show a progression of improvement in performance.
  Students who receive a mere "pass" on a rotation may be counseled about overall performance. Pass level performance is anticipated from time to time on one entry but not on the overall evaluation. Students who receive several rotations at the overall performance level of "pass" may be required to perform additional curriculum to improve performance.

  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 may be deemed as not making academic progress and, as a result, may be required to complete additional curriculum or may be referred to the Promotion Board.

  In addition, repeated performance of a specific competency area where many items performed in a specific category or across categories are rated as never, or seldom, will be a reason for remediation at the discretion of the Associate Dean for Clinical Affairs in consultation with the clinical chair, the preceptor, and/or the Promotion Board.

  Poor ratings on the clinical rotation evaluation in the professional and ethical areas of the assessment of a student are addressed by the Associate Dean for Clinical Affairs and may result in a remediation appropriate to correct the behavior or referral to the Professionalism and Ethics Board. In the case of repeated concerns in a professional and/or ethical area, or in the case the Associate Dean for Clinical Affairs deems this to be concern in professional and ethical behaviors, the Associate Dean may refer the student to the Campus Dean for a Behavioral Board or Promotion Board hearing. The Campus Dean will act upon this referral depending on the severity and the area of the performance measure.

- **Failure of a Rotation**
  All rotations on which a student receives a failing rotation grade must be repeated. The grade earned on the repeated clinical rotation will be recorded on the transcript. The prior U (Unsatisfactory - Fail) grade will also remain on the transcript. Students who fail a clinical rotation are referred to the Promotion Board who may require the student to complete additional curriculum, repeat an academic year, or be dismissed from VCOM. Failing of a rotation will result in academic probation.

- **Failure of Multiple Rotations or Repeat Rotations**
  Students who have a repeat failure or fail more than one rotation will always come before the Promotion Board.

V. Academic Expectations

Grading policies, academic progress, and graduation requirements may be found in the *College Catalog and Student Handbook* at: http://www.vcom.edu/handbooks/catalog/index.html

A. Attendance

Attendance for all clinical rotations is mandatory. Students are required to work a minimum of 20 days in a four week rotation period but should not work greater than 12 out of every 14 days or more than 12 hours daily exclusive of call assignments. Students may be required to work up to 24 days in a 4 week period or 25 days in a one month rotation including call and weekends at the discretion of the clinical faculty member providing the educational experience. For those rotations consisting of shift work such has Emergency Medicine or Hospitalist services, students should work a minimum of 160 and up to 200 hours for the month as required by the clinical site.

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.

Students must complete an Excused Absence Clinical Rotations Approval form. Forms are available at: www.vcom.edu/academics/clinical-forms . The Office of Clinical Affairs requires that the medical student complete and submit this form for any time "away" from clinical rotations. The student must have this form signed by their preceptor and others designated on the form to obtain an excused absence. 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 by 8:00 AM of the day they will be absent due to an illness or emergency and contact the Site Coordinator and preceptor(s). 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 complete a minimum of 160 hours.

OMS 3 students who have any unexcused absences will be referred to the Promotion Board and/or Professional and Ethics Standards Board as determined by the Associate Dean. Clinical site coordinators and preceptors document attendance on the student's rotation evaluation form. This information is reviewed by the Director of 3rd Year Clinical Rotations and the Associate Dean for Clinical Affairs.

A student is expected to arrive on time to 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 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 a reason for a referral to the Promotion Board and/or Professional and Ethics Standards Board as determined by the Associate Dean.

Any time missed must be remediated during the course of the month 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.

VI. 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* at: http://www.vcom.edu/handbooks/catalog/index.html

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* at: http://www.vcom.edu/handbooks/catalog/index.html

VII. CORE Radiology Cases

Case-based Online Radiology Education (CORE) is a virtual patient program presented by MedU for medical students studying Radiology. In an era of cost-containment and increasing importance of evidence-based decision making, yet with increased reliance on imaging technology, having a basic understanding of the principles and applications of medical imaging is vital. CORE currently includes several interactive virtual patient cases which encompass the learning objectives of the Alliance of Medical Student Educators in Radiology (AMSER) National Medical Student Radiology Curriculum. CORE cases teach a patient-centered approach to imaging, foster self-directed and independent study and build clinical problem-solving skills. They utilize the American College Radiology (ACR) Appropriateness criteria to teach an evidence-based approach to imaging and link to appropriate excellent interactive Radiology resources on the web. Upon completion of the CORE 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 viscersomatic/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 all components of the online program including the knowledge assessment questions associated with the cases. Your progress will be reviewed by the online administrator to ensure you have completed the program in its entirety. Students must successfully complete all the CORE cases and knowledge assessment questions by the last day of their FDM rotation.

If you have any questions regarding access to the CORE cases, please contact the clinical coordinator for your campus.

1. Chest: Infection

Online Case: MedU CORE Radiology Case 1

Learning Objectives:

i. Review CXR anatomy including the location of the lobes of the lung and their relationship to fissures
ii. Be introduced to the American College of Radiology (ACR) appropriateness criteria for imaging
iii. Learn the indications for chest imaging in patients presenting with upper respiratory tract infection symptoms.
iv. Learn the radiographic presentation of typical alveolar pneumonias in different lobes of the lung.
v. Understand the concepts of "silhouette sign" and "spine sign" and how they can be used to localize abnormalities on chest radiographs.
vi. Understand the term "air bronchograms" and the significance of this sign.
vii. Learn how some tumors can appear similar on imaging to pneumonia.
viii. Be introduced to the typical radiographic appearance of PCP pneumonia, and other opportunistic and atypical pneumonias and how they differ radiographically from typical bacterial and lobar pneumonias
ix. Understand the meaning and appearance of "ground glass" opacities on chest radiographs and CT scans.
x. Understand the use and limitations of portable radiographs in the ICU.
xi. Learn the imaging features of ARDS
xii. Acquire a basic understanding of patient radiation doses from common examinations and how we can try to limit them.
xiii. Learn the common imaging features of various types of pleural effusion including simple, hydropneumothorax, empyema and loculated pleural fluid collections ("pseudotumors").

xiv. Understand how pleural fluid appears differently on erect and supine radiographs.
xv. Learn when image guidance can help in the drainage of pleural fluid.

2. **Chest: Masses**
Online Case: MedU CORE Radiology Case 2
Learning Objectives:
i. Know the current recommendations for preoperative chest radiographs in people who are healthy and in those with underlying chest and cardiac diseases.
ii. Understand some of the challenges in detecting small nodules on chest radiographs.
iii. Have a concept of the different appearances of pulmonary nodules and their prognostic significance.
iv. Understand the current status of low dose CT imaging for lung cancer screening.
v. Understand some of the management issues related to pulmonary nodules (including the Fleischner Society recommendations).
vi. Have a basic understanding of the use of FDG PET imaging in the management of nodules and lung malignancies.
vii. Have reviewed the methods available for nodule biopsy.
viii. Will understand indications for needle biopsy, how the procedure is done, and the possible complications.
ix. Be able to recognize a pneumothorax and understand the meaning and consequences of a tension pneumothorax.
x. Know the options for treating a pneumothorax.
xi. Understand the purpose of TNM tumor staging and implications for long term survival.
xii. Recognize the common appearances of lobar atelectasis on chest radiographs.
xiii. Recognize the common appearances of linear and subsegmental atelectasis on chest radiographs.
xiv. Know the different etiologies that may cause complete opacification of a hemithorax.
xv. Know the expected postoperative appearance of the chest after pneumonectomy.

3. **Chest: Trauma**
Online Case: MedU CORE Radiology Case 3
Learning Objectives:
i. Know the indications, limitations and typical views obtained of a screening radiographic trauma series in major trauma.
ii. Have a concept of the indications for and advantages of using of CT for suspected chest/abdomen/pelvis trauma.
iii. Recognize the common radiographic and CT imaging findings seen in traumatic aortic injury.
iv. Know alternative imaging options to evaluate the aorta in patients with contrast allergies or renal insufficiency.
v. Understand the difference between aortic aneurysm, aortic dissection, and aortic lacerations (traumatic aortic injury).
vi. Understand the concept and typical appearance of pulmonary contusive injuries.
vii. Be able to recognize a tension pneumothorax on a radiograph.
viii. Be able to recognize the 'deep sulcus" sign of pneumothorax on supine radiographs and its significance.
ix. Know the correct positioning of chest tubes and how to evaluate chest tube placement on chest radiographs.
x. Recognize the difference between skin folds and a true pneumothorax on chest radiographs.
xi. Be able to determine correct and incorrect positioning of endotracheal tubes.
xii. Be able to determine the correct and incorrect positioning of NG tubes and feeding tubes.
xiii. Understand the indications for imaging in suspected rib fractures.
xiv. Recognize a pneumomediastum on chest radiographs.
xv. Be able to provide a differential diagnosis of possible etiologies for a pneumomediastinum.

4. **Chest: Vascular and COPD**
   Online Case: MedU CORE Radiology Case 4
   Learning Objectives:
   i. Recognize the typical changes of emphysema and COPD on chest radiographs.
   ii. Recognize the classic findings of aortic dissection on CT scans.
   iii. Understand how aortic dissections are classified based on imaging.
   iv. Have a basic concept of complications of aortic dissections and how dissections can be treated.
   v. Know the different imaging options used to diagnose pulmonary embolism.
   vi. Understand the basic principles of nuclear medicine V/Q scan imaging.
   vii. Understand the significance of V/Q scan interpretations: normal, low, intermediate and high probability.
   viii. Know options to decrease renal toxicity from IV contrast in a patient with impaired renal function.
   ix. Know when a D-dimer should be measured and the significance of a raised or normal value.
   x. Know the typical appearance of pulmonary emboli on CT pulmonary angiograms.
   xi. Understand the use of IVC filters.
   xii. Recognize cardiomegaly on chest radiographic and provide a differential diagnosis.
   xiii. Know the imaging findings of pulmonary edema.
   xiv. Understand the difference between the terms "CHF" and pulmonary edema.
   xv. Recognize Kerley B lines (and what they mean).
   xvi. Know where the heart chambers are on a chest radiograph and how the chest radiographs will change with chamber enlargement.
   xvii. Know the approximate positioning of heart valves on chest radiographs.

5. **GI: Colon and Small Bowel**
   Online Case: MedU CORE Radiology Case 5
   Learning Objectives:
   i. Learn how to use the ACR Appropriateness Criteria® website.
   ii. Be able to recognize normal anatomy on abdominal radiographs.
   iii. Understand what the terms "abdominal radiographs, KUB, upright and supine and acute .abdominal series" mean and when these studies should be performed.
   iv. Be able to recognize colonic wall thickening ("thumbprinting") on radiographs and know the possible diagnoses.
   v. Know some imaging options for evaluating inflammatory bowel disease.
   vi. Know the contraindications to administering intravenous contrast.
   vii. Know how contrast reactions may present and how to treat them.
   viii. Understand why oral, rectal and intravenous contrast is given for abdominal CT scans.
   ix. Know what the options are for oral contrast in fluoroscopic studies.
   x. Understand the differences between the different GI fluoroscopic studies that can be ordered and when they should be performed.
   xi. See what the preparation for double contrast barium enemas involves for the patient.
   xii. Learn how to recognize a pneumoperitoneum on radiographs.
   xiii. Know the options for staging colon cancer.
   xiv. Learn how to recognize and differentiate small bowel obstruction versus ileus on radiographs.

6. **GI: Gallbladder and Pancreas**
   Online Case: MedU CORE Radiology Case 6
   Learning Objectives:
   i. Learn how to use the ACR Appropriateness Criteria®.
   ii. Learn to identify gallstones and other abdominal calcifications on abdominal radiographs.
   iii. Learn basic RUQ abdominal ultrasound (US) anatomy.
   iv. Know the appropriate imaging management for suspected acute cholecystitis.

v. Know the appropriate imaging management for biliary obstruction with different presentations.
vi. Know what chronic cholecystitis and acute cholecystitis look like on US and nuclear medicine hepatobiliary scanning.
vii. Know the causes of false positive and false negative ultrasound examinations when evaluating for acute cholecystitis.
viii. Know what imaging exams can be performed portably.
ix. Understand the use of imaging-guided paracentesis.
x. Know the basic concepts of diagnosing appendicitis by US, CT, MR.
xi. Understand what a MRCP scan is and when it can be a useful diagnostic tool.
xii. Understand what an ERCP is and some of its applications.
xiii. Know when CT is helpful in the evaluation of acute pancreatitis and recognize its classic appearance.
xiv. Know the modalities that can be used to diagnose pancreatic carcinoma.
xv. Understand the basic principles of treating metastatic liver lesions with Radiofrequency ablation (RFA).
xvi. Know how percutaneous transhepatic biliary drains are placed.

7. Renal/GU

Online Case: MedU CORE Radiology Case 7

Learning Objectives:

i. Learn how to use the American College of Radiology (ACR) Appropriate Criteria®.
ii. Understand the imaging evaluation of nephroureterolithiasis by ultrasound and CT.
iii. Recognize the typical appearance of nephrouretherolithiasis on CT and ultrasound.
iv. Identify the imaging findings in patients with nephrouretherolithiasis that may indicate that surgical intervention is needed.
v. Know when imaging may be indicated in patients with pyelonephritis.
vi. See the typical appearance of pyelonephritis on CT.
vii. Understand what contrast-induced nephropathy is, and risk factors for it.
viii. Know the options for the imaging workup of renovascular hypertension.
ix. Understand how Captopril renography is used to diagnose renal artery stenosis.
x. See how renal artery stenosis can be treated by interventional radiology.
xi. Understand the imaging workup and findings of painless hematuria.
xii. Know how indeterminate renal masses can be further evaluated.
xiii. Be able to differentiate renal cysts from solid masses on US and CT.
xiv. Know the imaging workup to stage of renal cell carcinoma.

8. GI: Trauma

Online Case: MedU CORE Radiology Case 8

Learning Objectives:

i. List the components of a typical radiographic trauma series.
ii. Describe a "FAST"scan, and when and how it is performed.
iii. State how the results of "FAST" scanning alter the management of trauma patients.
iv. Develop a search pattern for looking at trauma pelvic radiographs.
v. Develop a search pattern for looking at supine trauma chest radiographs.
vi. Learn how and when CT scans are performed for abdominal trauma and what contrast is necessary.
vii. Have a basic concept of what CT findings of solid organ injury may necessitate surgery, and what may be managed non-operatively.
viii. Know the typical CT imaging findings in liver, splenic, and kidney lacerations.
ix. List three typical CT imaging findings of bowel injury.
x. Know when bladder and urethral injuries should be suspected and further evaluated.
xi. Know how to further evaluate suspected hollow viscus injuries including bowel and bladder.

xii. See how bladder ruptures (intra- and extra-peritoneal) appear on CT scans.
xiii. Know when a diaphragmatic injury should be suspected.
xiv. See the typical radiographic presentation of diaphragmatic injuries.
xv. List 3 ways to minimize radiation dose during trauma evaluation.

9. Neuro: Trauma

Online Case: MedU CORE Radiology Case 9

Learning Objectives:

i. Have reviewed basic head CT anatomy.
ii. Know the appropriate imaging work up for patients with head trauma.
iii. Recognize the appearance of intracranial hemorrhage on CT, specifically epidural, subdural, subarachnoid and intraparenchymal hemorrhage.
iv. Be able to list criteria that are used in spinal trauma to determine if the patient should have CT of the cervical spine.
v. Know some of the traumatic injuries than can be seen on a lateral c-spine radiograph.
vi. Know the various types and causes of brain herniation.
vii. Have seen the typical appearance of brain herniation on CT scans.
viii. Recognize the typical change in appearance of intracranial blood products with age on CT.
ix. Be aware of the changes in appearance of intracranial blood products with age on MRI.
x. Have seen the typical appearance of diffuse axonal injury on MRI and CT.

10. Neuro: Vascular and HIV

Online Case: MedU CORE Radiology Case 10

Learning Objectives:

i. Be able to categorize headache etiologies and identify dangerous causes of headaches.
ii. Have reviewed the ACR Appropriateness Criteria for imaging work up of headache.
iii. Be able to select appropriate diagnostic imaging studies for dangerous causes of headaches.
iv. Recognize the appearance of subarachnoid hemorrhage on non-contrast head CT.
v. Have a basic understanding of the different types of vascular malformations and have seen examples on CT and MRI.
vi. Be able to differentiate T1, T2 and FLAIR MRI neuroimaging sequences.
vii. Know what a DWI sequence on MRI is and its common uses.
viii. Be able to name common locations of berry aneurysms.
ix. Have reviewed the anatomy of the cerebral vasculature.
x. Know the treatment options available for patients with cerebral aneurysm(s).
xi. Know the common cerebral mass lesions which occur in the HIV population and have some awareness of their different appearances on MRI.
xii. Understand the basic concept of what MR spectroscopy is and what it is used for.

11. Pediatrics A

Online Case: MedU CORE Radiology Case 11

Learning Objectives:

i. Be able to discuss the differential diagnosis and choose the appropriate imaging work-up for bilious vomiting in an infant.
ii. Be able to discuss the differential diagnosis and choose the appropriate imaging work-up for NON-bilious vomiting in an infant.
iii. Understand the concept of malrotation and midgut volvulus.
iv. Know the typical findings of midgut volvulus on an upper GI study.
v. See the typical appearance of duodenal atresia on radiographs.
vi. See the typical appearance of pyloric stenosis on ultrasound.
vii. Recognize the radiographic signs of bronchiolitis in infants.

viii. Recognize the radiographic signs of common complications of tube and line placements in pediatric patients such as a pneumothorax.
ix. Know the appropriate use of chest radiology in ventilator dependent pediatric patients.
x. Be aware of the potential risks of radiation exposure in the pediatric population and the current increase in medical imaging in this age group.
xi. Know where to obtain resources to discuss medical imaging risks with parents.
xii. Be able to describe the common pediatric fractures.
xiii. Be able to discuss the differential diagnosis of, and choose the appropriate imaging evaluation for, limp in young pediatric patients.
xiv. See the typical appearance of a hip effusion on ultrasound.
xv. Know which fractures which are pathognomonic for child abuse, and which fractures which are commonly associated with child abuse.
xvi. Be aware of resources for the management of suspected child abuse cases.

12. Pediatrics B

Online Case: MedU CORE Radiology Case 12

Learning Objectives:

i. Understand the etiology and history of developmental hip dysplasia (DDH).
ii. Know how to screen and further evaluate babies with suspected DDH.
iii. Know how DDH is treated.
iv. Understand the different types of hydrocephalus.
v. Know how to evaluate for hydrocephalus in infants and young children.
vi. Know some of the uses of transcranial ultrasound in neonates and infants.
vii. Be familiar with the appearance of hydrocephalus on neonatal transcranial ultrasound.
viii. List an appropriate differential diagnosis of acute abdominal pain in the pediatric patient.
ix. Know the appropriate imaging management of pediatric patients with acute and chronic abdominal pain depending on age of presentation.
x. Have seen the common imaging findings of acute appendicitis, intussuception and testicular torsion.
xi. Know the typical clinical presentation and management of pediatric epiglottitis.
xii. Have seen the typical radiographic characteristics of acute epiglottitis.
xiii. Be aware of the entity of round pneumonia.

13. MSK: Arthritis and Osteomyelitis

Online Case: MedU CORE Radiology Case 13

Learning Objectives:

i. Review the typical presentation of a patient with rheumatoid arthritis
ii. Know the common imaging findings in rheumatoid.
iii. Understand the difference between osteoporosis, osteopenia and osteomalacia
iv. Know who should be screened for osteoporosis.
v. Understand the different means of screening for osteoporosis and some of their limitations.
vi. Understand the meaning of T and Z scores on bone mineral density reports.
vii. Have a basic concept of the imaging findings in osteomyelitis.
viii. Know how to image the diabetic foot when osteomyelitis is suspected.
ix. Be aware of some the radiographic findings and challenges in imaging neuropathic (Charcot) feet.
x. Be aware of the variability in radiation doses to the patient between different common imaging exams.
xi. Review the ACR Appropriateness Criteria for imaging patients with acute back pain.
xii. Have seen the typical appearance of osteoporotic compression fractures of the spine on radiographs and an MRI.
xiii. Understand how and when vertebroplasty may be performed.

14. **Women's Imaging: Pregnancy and Infertility**
Online Case: MedU CORE Radiology Case 14
Learning Objectives:
    i. Know how to manage a palpable breast mass in a young patient.
    ii. Know the appearance of a simple breast cyst.
    iii. Have a basic understanding of the imaging work up for infertility, and how interventional radiology can help with tubal occlusions.
    iv. See examples of normal and abnormal hysterosalpingograms.
    v. Recognize the normal appearance of the uterus on ultrasounds.
    vi. Know the indications for first trimester ultrasound.
    vii. Have seen the normal sequence of appearance of embryonic structures on first trimester ultrasound.
    viii. Know how suspected ectopic pregnancies are managed and see examples of their typical appearances.
    ix. Know the indications for second and third trimester ultrasound imaging including morphological surveys and Down syndrome screening.
    x. Have a basic understanding of the concept of minor and major markers in morphological screening ultrasound.
    xi. See examples of normal fetal and placental structures on second trimester ultrasounds.
    xii. Learn how to image common suspected (non-pregnancy related) abdominal conditions in the pregnant patient.
    xiii. Develop a basic understanding of how common imaging modalities may produce radiation effects in the fetus, and how high that risk is.

15. **Women's Imaging: Malignancy and Screening**
Online Case: MedU CORE Radiology Case 15
Learning Objectives:
    i. Gain familiarity with the current recommendations for screening mammography.
    ii. Be aware of some of the controversies surrounding screening mammography.
    iii. Know how mammography is performed.
    iv. Know what the BIRADS categories refer to (that are on all mammographic reports).
    v. Understand what the term 'diagnostic mammography refers to, and when patients should be referred for diagnostic mammography.
    vi. Have a broad understanding of what kinds of abnormalities can be seen on mammograms.
    vii. Know about the use of image guided core needle breast biopsies.
    viii. Know what modalities are used to stage patients with breast cancer, including breast MRI
    ix. Have seen some examples of breast MRI images.
    x. Know how sentinel nodes studies are performed.
    xi. Understand the concept of 'neoadjuvant' chemotherapy.
    xii. Know about the availability of familial cancer assessment programs and risk assessment models such as the Gail model.
    xiii. Understand the concepts behind screening for patients who are high risk for breast cancer with mammography and MRI.
    xiv. Know when and how patients at increased risk of ovarian cancer should be screened.
    xv. Know the indications for performing pelvic ultrasound.
    xvi. Know how to evaluate post-menopausal vaginal bleeding.
    xvii. Know what is an abnormal endometrial thickness in a post-menopausal patient.
    xviii. Have seen examples of endometrial cancer on transvaginal ultrasound.
    xix. Be familiar with the term sonohysterography and its indications and have seen examples of common conditions with this modality.
    xx. Know some of the indications that can be evaluated by pelvic MRI.

16. **MSK: Trauma**
    Online Case: MedU CORE Radiology Case 16
    Learning Objectives:
    i. Identify the anatomy and become familiar with the imaging of the upper and lower extremities on x-ray with emphasis on pelvis, knee, ankle wrist, and shoulder.
    ii. Develop a general approach to the interpretation of bone radiographs with adherence to a systemized evaluation for the diagnosis of fractures and joint dislocations.
    iii. Use proper terminology when describing fractures and develop a basic understanding of fracture mechanics.
    iv. Explain the importance of multiple x-ray views in fracture diagnosis and the need for cross sectional images in the context of suspected occult fractures.
    v. Discriminate between the use of plain film, CT or MRI for evaluating musculoskeletal injuries both osseous and ligamentous/soft tissue.
    vi. Familiarize with a number of widely used fracture classifications and understand the basic physiologic premise for which the classification were derived.
    vii. Summarize risks and contraindications of radiological examinations including fluoroscopy and MRI.

17. **Cardiac and Cardiovascular**
    Online Case: MedU CORE Radiology Case 17
    Learning Objectives:
    i. Propose imaging strategy options for the evaluation of chest pain and dyspnea (of suspected cardiac origin)
    ii. Decide on appropriate imaging for initial evaluation and follow up of a pulsatile abdominal abnormality discovered on physical exam.
    iii. Delineate the potential advantages of CT angiography versus catheter angiography in the evaluation of coronary artery disease in intermediate and low risk populations.
    iv. Delineate possible advantages of lower extremity CT angiography over conventional catheter angiography.
    v. Understand the radiation dose involved with cardiac nuclear medicine and CT imaging.
    vi. Identify the radiographic appearance of common catheters used in the ICU.
    vii. Understand the use and radiographic appearance (and safe positioning) of pulmonary artery catheters (Swan-Ganz) and intra-aortic balloon pumps (IABP) in the ICU.
    viii. List the chest radiographic findings associated with CHF Understand the difference between terms "CHF" and "pulmonary edema".
    ix. Identify the positions of cardiac chambers and heart valves on a chest radiographs.
    x. Recognize the ultrasound appearance of an abdominal aortic aneurysm.
    xi. Outline the potential advantages and disadvantages of US and CT in the evaluation of abdominal aortic aneurysm.
    xii. Outline imaging strategies for evaluation of cardiac ischemia (reversible and fixed) using nuclear medicine and cardiac MR technique.
    xiii. Outline the imaging alternatives for evaluation of myocardial perfusion using MR and nuclear medicine cardiac scans.
    xiv. Review radiation risks with a patient regarding cardiac imaging studies (echo, MRI, CT, and nuclear medicine)
    xv. State the dose involved as an equivalent number of chest radiographs and to natural background radiation.
    xvi. Understand the anatomic basis for the common locations of bowel ischemia.

18. **Professionalism in Radiology**
    Online Case: MedU CORE Radiology Case 18
    Learning Objectives:
    i. List 3 attributes of a professional.
    ii. Describe 3 effects on medicine when professionalism is absent.
    iii. List information to include in a radiology consult
    iv. Know how imaging critical findings are communicated and documented
    v. Discuss patient privacy issues regarding
        a. PACS/EMR use
        b. Discussing patients in public
        c. De-identification of images for presentations and publications
        d. Social media
    vi. Define what a fiduciary relationship is and what that means for physicians in managing boundaries.
    vii. Recognize the importance of honesty with patients, without overstepping boundaries as a medical student.
    viii. Describe the role of clinical decision support resources, such as the ACR Appropriateness Criteria ®in "just distribution of resources."
    ix. Discuss managing conflicts of interest regarding:
        a. Gifts from patients
        b. Gifts from Pharma

19. **Oncology**
    Online Case: MedU CORE Radiology Case 19
    Learning Objectives:
    i. Characterize how to choose imaging modalities for different cancer diagnoses.
    ii. Describe methods involved in cancer surveillance.
    iii. Discuss imaging pitfalls in the care of the oncologic patient.
    iv. Describe illness scripts that suggest oncologic diagnoses
    v. Describe how cancer is staged.
    vi. Describe how tumor treatment responses are assessed.
    vii. Discuss the role of the multidisciplinary Tumor Board in management of cancer.
    viii. Describe roles radiologists have in care of oncologic patients.
    ix. List 4 distinct roles of imaging in care of the cancer patient.
    x. Discuss how imaging helps balance beneficial & harmful effects of treatment.

VIII. Choosing Wisely ® Physician Communication Modules

One of the goals of the FDM rotation is to ensure students gain an understanding of the appropriate use of diagnostic technology available to them and to ensure they are using this technology in a safe, efficient and evidence based manner. As noted by the Choosing Wisely ® campaign, the overuse of health care resources is an issue of considerable concern. Some experts contend that as much as 30 percent of all health care delivered is duplicative or unnecessary and may not improve people's health. Physicians and patients must work together to ensure that care choices are supported by evidence, are not duplicative of other tests or procedures already received, minimize the risk of harm and are truly necessary.

The ABIM Foundation funded the Drexel University College of Medicine to develop a set of interactive instructional modules to enhance physician and patient communication around the specialty society recommendations from the Choosing Wisely campaign. Developed in collaboration with nine medical specialty societies, these modules are designed to help physicians, patients and other health care stakeholders think and talk about overuse of health care resources by providing strategies for physicians to build trust and address patient attitudes and beliefs that more care is not always better care.

Students must complete all 10 physician communication modules listed below. The end-of-rotation exam will come directly from the below objectives based on the 5 recommendations from each specialty society and their accompanying material. Students must pass the end-of-rotation exam with a grade of 70 or better.

Students should review all material found in each specialty society module. A menu of each module's components can be located on the left-hand side of each module's page.

1. **ABIM Foundation**
   Online Module: ABIM Foundation
   Learning Objectives:
   i. Articulate strategies to implement Choosing Wisely® conversations.
   ii. Identify the structural and personal barriers to implementing the Choosing Wisely® recommendations in the care of patients.
   iii. List the reasons physicians should order tests and prescribe medications utilizing the best evidence available.
   iv. Discuss 4 basic communication skills utilized in explaining and reassuring patients regarding the physician's decision to utilize or not utilize certain tests or treatments following evidence based medicine.

2. **American Academy of Allergy, Asthma, and Immunology**
   Online Module: American Academy of Allergy, Asthma, and Immunology
   Learning Objectives:
   i. Discuss AAAAI guidelines for the appropriate use of diagnostic tests in the evaluation of allergies.
   ii. Explain the etiology of most cases of sinusitis and recall the AAAAI recommendations regarding treatment and imaging for uncomplicated acute rhinosinusitis.
   iii. Recall the guidelines for the etiology and evaluation of patients presenting with chronic urticaria.
   iv. Discuss and apply the AAAAI recommendations for the use of immunoglobulin therapy for recurrent infections.
   v. Identify the appropriate diagnostic test that should be utilized for the diagnosis of patients suspected of having asthma.

3. **American Academy of Family Physicians**
   Online Module: American Academy of Family Physicians
   Learning Objectives:
   i. Review and apply the AAFP recommendations for the use of imaging for acute back pain.
   ii. List the red flags associated with low back pain that indicate a potentially serious cause and should prompt the consideration for imaging.
   iii. Identify the indications for the utilization of antibiotics for acute sinusitis according to the AAFP recommendations.
   iv. Discuss and summarize the indications for the use of DEXA scanning to screen for osteoporosis. Identify the groups of patients identified in the AAFP recommendations for which DEXA is not cost effective or indicated.
   v. List the recommendations for the prevention of osteoporosis.
   vi. Summarize the AAFP guidelines for the utilization of EKG or other cardiac screening tests for low-risk patients without symptoms.
   vii. List the potential harms of false-positive tests when EKG's or other cardiac screening exams are utilized in low-risk patients.
   viii. Discuss and summarize the AAFP indications for the use of Pap smears. Identify the groups of patients identified in the AAFP recommendations for which Pap smears are not indicated.

4. **American Academy of Pediatrics**
   Online Module: American Academy of Pediatrics
   Learning Objectives:
   i. Review and apply the AAP recommendations for the use antibiotics in the treatment of URI's.
   ii. Review and apply the AAP recommendations for the use of cough and cold medicines for the treatment of respiratory illnesses in children < 4 years of age.
   iii. Discuss the potential harm in the use of cough and cold medicines in young children.
   iv. List alternative treatments to cough and cold medicines in the management of symptoms associated with respiratory illnesses.
   v. Review and apply the AAP recommendations for the use of CT scanning in the evaluation of minor head injuries.
   vi. Summarize and apply the PECARN criteria for determining the need for CT scanning in children <2 and children > 2.
   vii. List the red flags associated with the need for head CT in pediatric patients.
   viii. Review and apply the AAP recommendations for the use of MRI in the evaluation of children with simple febrile seizures.
   ix. Discuss and apply the AAP recommendations for the utilization of CT in the routine evaluation of abdominal pain in pediatric patients.

5. **American College of Cardiologists**
   Online Module: American College of Cardiologists
   Learning Objectives:
   i. Review and apply the ACC recommendations for the use of stress or non-invasive imaging in the evaluation of patients.
   ii. List the findings that ACC states indicate the need for testing for coronary disease.
   iii. Summarize and apply the ACC recommendations for the performance of stress or non-invasive imaging in the routine follow up of asymptomatic patients. List the 2 exceptions to their recommendations that would warrant testing.
   iv. Summarize and apply the ACC recommendations for the performance of echocardiography in the routine follow-up for mild, asymptomatic native valve disease in adult patients with no change in signs or symptoms.
   v. Review and apply the ACC recommendations for the performance of stress or non-invasive imaging in the pre-operative assessment of patients scheduled to undergo low-risk, non-cardiac surgery.
   vi. Summarize and apply the ACC recommendations for the utilization of stenting of non-culprit lesions during PCI for uncomplicated STEMI.

6. **American College of Physicians**
   Online Module: American College of Physicians
   Learning Objectives:
   i. Utilize the Framingham risk calculator and its risk factors to determine utility of screening exercise electrocardiogram testing for patients who are asymptomatic and at low risk for coronary heart disease.
   ii. Apply the ACP recommendations for exercise electrocardiography in asymptomatic and low-risk patients.
   iii. Recognize indications for imaging for acute low back pain.
   iv. List potential harms associated with inappropriate imaging of low back pain.
   v. Summarize and apply the National Clinical Guidelines Center and the European Society of Cardiology recommendations for the use of brain imaging in simple syncope
   vi. Define simple syncope or uncomplicated faint or situational syncope.
   vii. Utilize the Wells score to define pretest probability for venous thromboembolism

viii. Apply the American College of Physicians and American Academy of Family Physicians recommendation against using imaging studies to diagnose DVT or PE in patients with low clinical probability
ix. Summarize the indications for a pre-operative chest x-ray according to the American College of Radiology and the Institute for Clinical Systems Improvement
x. Utilize communication concepts to aid in implementation of the recommendations.

7. **American College of Radiology**
Online Module: American College of Radiology
Learning Objectives:
i. Review and apply the ACR recommendations for the use of imaging in the evaluation of patients presenting with uncomplicated headaches.
ii. List the red flags associated with headache that indicate a potentially serious cause and should prompt the consideration for imaging.
iii. Summarize the ACR recommendations regarding the evaluation and work up of patients presenting with suspected pulmonary embolus.
iv. Identify the role of D-dimer testing in the evaluation of suspected pulmonary embolus.
v. Discuss and apply the ACR recommendations for the utilization of admission or preoperative chest x-rays for ambulatory patients.
vi. List the 2 situations/conditions in which preoperative and admission chest x-rays should be utilized.
vii. Summarize and apply the ACR guidelines for obtaining imaging in children with suspected appendicitis.
viii. Discuss and apply the ACR recommendations for the use of follow-up imaging for clinically inconsequential adnexal cysts.

8. **American Gastrointestinal Association**
Online Module: American Gastrointestinal Association
Learning Objectives:
i. Summarize the AGA recommendations for the pharmacological treatment of gastroesophageal reflux disease.
ii. List and discuss the risks of short and long term proton pump inhibitor (PPI) use as described in the AGA recommendations.
iii. Review and apply the AGA colorectal cancer screening recommendations following a high-quality negative colonoscopy.
iv. Review and apply the AGA recommendations following the removal of adenomatous polyps during a high-quality colonoscopy.
v. Apply the AGA recommendations for the follow-up surveillance of patients diagnosed with Barrett's esophagus.
vi. Describe the AGA's recommended approach to the use of CT scanning in patients diagnosed with functional abdominal pain.
vii. Define "functional abdominal pain" using the ROME III criteria.

9. **American Society of Nephrology**
Online Module: American Society of Nephrology
Learning Objectives:
i. Summarize and apply the ASN recommendations for routine cancer screening in dialysis patients.
ii. Review and apply the ASN recommendations for the use of erythropoiesis-stimulating agents (ESA's) in patients with chronic kidney disease.
iii. Summarize and apply the ASN recommendations for the use of NSAIDS.
iv. List the adverse effects of NSAID use and list alternative treatment options.

v. Describe the ASN recommendations in regards to the utilization of PICC lines in patients with stage III-IV CKD.
vi. List the benefits of the use of an AV fistula over a central venous catheter for dialysis.
vii. Describe the importance of a shared decision-making process between patients, their families and their physicians in regards to the initiation of chronic dialysis.

10. American Society of Nuclear Cardiology

Online Module: American Society of Nuclear Cardiology

Learning Objectives:

i. Review and apply the ASNC recommendations for the use of stress imaging in the evaluation of patients without cardiac symptoms.
ii. List the high risk findings that ASNC states indicate the need for Myocardial Perfusion Imaging for coronary disease.
iii. Summarize and apply the ASNC recommendations for the performance of radionuclide imaging in the routine follow up of asymptomatic patients.
iv. Summarize and apply the ASNC recommendations for the performance of cardiac imaging in patients who are at low risk for cardiac disease. List the 2 exceptions to their recommendations that would warrant testing.
v. Review and apply the ASNC recommendations for the performance of stress or non-invasive imaging in the pre-operative assessment of patients scheduled to undergo low or intermediate-risk, non-cardiac surgery.
vi. Summarize and apply the ASNC recommendations regarding methods for reducing radiation exposure in cardiac imaging.

IX. Stanford 25 Physical Exam Modules

The third component of the FDM curriculum involves a review of the Stanford 25 Physical Exam Modules. The Stanford 25 is a comprehensive program that provides an online review of 25 critical physical exams that clinicians routinely perform on patients. The online program is not a stand-alone program, but rather serves as a review to help prepare students to perform these exams, which must then be practiced numerous times during their 3rd and 4th year rotations under the supervision of their clinical preceptors to ensure proper performance and interpretation of their findings. The modules utilize evidence based reviews and high quality clinical videos with real patient findings to stress the importance of excellent physical exam skills in making accurate, timely physical diagnoses. The specific objectives or key learning points may be found at the beginning of each module.

In this age of numerous imaging and laboratory technologies, the physical exam is still the key element in diagnostic medicine. Students must be knowledgeable and proficient in their physical examinations in order to become expert diagnosticians. Students must review all 25 physical exam modules in their entirety and will be require to acknowledge, under the VCOM honor code, the completion of this component of the FDM rotation.

X. Opioid and Pain Management Educational Modules

In an era when prescription drug abuse is the nation's fastest growing drug problem, it is imperative that all medical students understand the critical role physicians play in reducing prescription drug misuse and abuse. VCOM has made a commitment to educate all students in the Centers for Disease Control and Prevention (CDC) Guideline for Prescribing Opioids for Chronic Pain. While many prescription drugs have the great potential to relieve pain and suffering, they can also lead to adverse effects, abuse, diversion and addiction. A 2015 report from federal health officials show that 92 million American adults used a prescription opioid, more than 11 million reported to the misuse of opioids and nearly two million report addiction.

It has been shown that even brief interventions by primary care providers have proven effective in reducing or eliminating substance abuse in people who abuse drugs but are not yet addicted. In addition, prescription

drug abuse education helps to promote awareness of this growing problem among prescribers to prevent inappropriate over prescription of these medications.

This component of the FDM curriculum will provide students with information regarding the CDC guidelines for prescribing opioids for chronic pain. It also covers information on intervention and treatment strategies for patients who are abusing opioid medications.

These modules provide practical guidance for physicians and other clinicians in screening pain patients, offering education on alternative therapies and how to safely prescribe opioids.

1. **CDC Guideline for Prescribing Opioids for Chronic Pain**
   Online Module: Part one of this curriculum requires students to complete the online module
   Applying CDC's Guideline for Prescribing Opioids
   Learning Objectives:
   i. Determining when to initiate or continue opioids for chronic pain
   ii. Opioid selection, dosage, duration, follow-up and discontinuation
   iii. Assessing risk and addressing harms of opioid use

2. **Physician/Patient Communication Skills Videos**
   Following completion of the above module, students are required to review the educational material and supporting videos found at each indicated web link below.

   In addition, students will be required to acknowledge completion of this component of the FDM rotation under the VCOM honor code.

   A. Screening and Brief Intervention Guidance
   i. Identifying Patients with Substance Use Disorders
   ii. Screening for Substance Use Disorders
   iii. Tips for Conducting a Brief Intervention and Assessing Readiness to Change
   iv. The Clinical Assessment of Substance Use Disorders Case Study
   v. Substance Use Disorders in Adolescents: Screening and Engagement in Primary Care Settings

   B. Treatment and Recovery
   i. Interviews with Patients in Recovery
      a. www.drugabuse.gov/nidamed/videos/dr-nora-volkow-director-nida
      b. www.drugabuse.gov/nidamed/videos/hear-recovering-patients
      c. www.drugabuse.gov/nidamed/thoughts-recovery-patients-video
   ii. Core Principles for the Treatment of Substance Use Disorders

   C. Communicating with Patients
   i. Improving Patient Care: Enhancing Clinician Perspectives Toward Treating Patients with Substance Use Disorders
   ii. Administering a Narcotic Contract
   iii. Recommendations for Addressing Patient Resistance to Substance Use Diagnoses

XI. Osteopathic Manipulative Medicine

Students on their FDM month are required to participate in at least one OMM hands-on workshop during this month. They may choose to attend the monthly workshop offered in their core region training site, the workshop held at the VCOM — Virginia Campus and VCOM —Carolinas Campus on the last Friday of the rotation, or both. Students must prepare for the workshop they select to attend by completing any associated reading assignments and suggested supporting videos, either on the ACOFP site or VCOM TV,

prior to the workshop session. The specific didactic curriculum will depend on the month the student is participating in the FDM rotation as well as the specific site of the workshop. Students should contact the Site Coordinator for their region or check the OMM website to obtain this information.

Students must submit a copy of the OMM Workshop Log for successful completion of their FDM month. This log should document participation in the monthly OMM workshop and must be submitted online on the VCOM portal no later than 14 days following the completion of the rotation.