Edward Via College of Osteopathic Medicine

MED 8000
Foundations of Clinical Medicine
Academic Year 2024 – 2025

COURSE SYLLABUS

Course Directors

Sofia Abraham-Hardee, DO, PhD
Associate Dean for Clinical Affairs
Virginia Campus
Phone: 540-231-6298
sabraham@vt.vcom.edu

Andy Langley, DO
Associate Dean for Clinical Affairs
Louisiana Campus
Phone: 318-342-7133
dlangley@ulm.vcom.edu

Johnny Stackhouse, DO
Associate Dean for Clinical Affairs
Auburn Campus
Phone: 334-442-4012
jstackhouse@auburn.vcom.edu

Lindsay Tjiattas-Saleski, DO
Associate Dean for Clinical Affairs
Carolinas Campus
Phone: (864) 327-9832
ltjiattassaleski@carolinas.vcom.edu

Course Administrators

Sam Kuhn, BS
Clinical Assessment Coordinator
Auburn Campus
Phone: 334-442-4071
skuhn@auburn.vcom.edu

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

Brad McGilton, BS
Clinical Assessment Coordinator
Louisiana Campus
Phone: 318-342-7142
bmcgilton@ulm.vcom.edu

Lauren Woodcock
Clinical Assessment Coordinator
Virginia Campus
Phone: 540-231-0915
lwoodcock@vcom.vt.edu

I. Course Description

The Foundations of Clinical Medicine (FCM) course provides a comprehensive curriculum designed to assist students in improving their mastery of core fundamental concepts applicable to clinical rotation. FCM emphasizes diagnostic medicine, physician-patient communication, research basics and responsible opioid prescribing.

II. Course Design

A. Educational Modules

Online educational modules using cases and other formats of delivery are used. Each student must complete all designated components of each module to assure the expected basic content or medical knowledge has been acquired during the course.

III. Credits

MED 8000: 2 credit hours

IV. Course Grading and Requirements for Successful Completion

A. FCM Requirements Week 1 (July 22 – 26, 2024)
The below requirements are due by Friday at 5:00pm of the 1ˢᵗ week of the FCM course.
ADPOS students with different dates for the FCM course must still complete the requirements by Friday at 5:00pm of the 1ˢᵗ week of FCM.

- **Clinically Relevant Modules**
  Completion of 5 clinically relevant modules and associated content.
  - Students will complete a quiz in Canvas where they attest to reviewing the following 2

modules in order to receive credit for completion of this component of the course **by Friday at 5:00pm of the 1st week of the FCM course.**

- ➢ Judicious Use of Antibiotics, Tests, and Procedures
- ➢ Review of ECG

  o A report will be generated from Storyline to ensure completion by each student. Students must complete the following 3 modules and earn a 75% or greater on the embedded knowledge assessment questions, in order to receive credit for completion of this component of the course **by Friday at 5:00pm of the 1st week of the FCM course.** Students will have unlimited attempts on the knowledge assessment questions to earn a 75% or greater.

    - ➢ Health Systems Awareness
    - ➢ Value-Based Purchasing
    - ➢ Improving Patient Safety

- **AMA Ed Hub Opioid Therapy and Pain Management Modules**
  Completion of the 5 assigned AMA Ed Hub Opioid Therapy and Pain Management Modules, completion of the module quizzes, and submission of the certificate of completion for each module to CANVAS **by Friday at 5:00pm of the 1st week of the FCM course.**
  - o Register and create a free account at: https://fsso.ama-assn.org/login/account/login
  - o Completion certificates must be submitted to Canvas by the end of the course at: https://canvas.vcom.edu

- **CITI Training: Protection of Human Research Subjects**
  All students must complete CITI Training. Students must complete the Protection of Human Research Subjects CITI Training Course and submit their certificate of completion to CANVAS before beginning their research project **by Friday at 5:00pm of the 1st week of the FCM course.**

  By the OMS 3 year, all students have completed this training. Confirm that your CITI training is still valid and will be valid throughout your OMS 3 year. If it is not valid, you will need to complete a refresher course.
  - o Submit your certificate of completion to Canvas before beginning your research project at: https://canvas.vcom.edu
  - o If you have any questions about registration or course selection, please contact Eryn Perry, eperry@vcom.edu

- **CITI Training: OSHA Bloodborne Pathogens**
  All students must complete CITI Training. Students must complete the OSHA Bloodborne Pathogens CITI Training Course and submit their certificate of completion to CANVAS **by Friday at 5:00pm of the 1st week of the FCM course.**

  If you have already completed this training, confirm that your CITI training is still valid and will be valid throughout the length of your research project. If it is not valid, you will need to complete a refresher course.
  - o Submit your certificate of completion to Canvas before beginning your research project at: https://canvas.vcom.edu
  - o If you have any questions about registration or course selection, please contact Eryn Perry, eperry@vcom.edu

  For those who have not yet completed this training, follow the steps below to create an account affiliated with VCOM, which will allow you to complete CITI Training:

- By following the link below, you will access the CITI Training website where you will register for an account. Once you have reached this link, perform the following actions to create an account affiliated with VCOM:
    - https://www.citiprogram.org and click "Register" on the top right of the page.
    - Under "Select Your Organization Affiliation," type "Edward Via College of Osteopathic Medicine" in the box and choose this selection from the drop-down menu.
        - Check the box to agree to the Terms of Service and Privacy Policy.
        - Check the box to affirm that you are an affiliate of VCOM.
        - Click, "Create a CITI Program account".
    - Complete the Personal Information section and click "Continue to Step 3."
    - Create your Username, Password and Security Question and Answer and click "Continue to Step 4."
    - If you have an ORCID ID and wish to connect, you may do so, but this is not a requirement and can be done at any time. Enter applicable demographic data into the required fields and click "Finalize Registration."
    - Complete CE Credit Status request and then click "Submit" (this will most likely be "No").
    - The next page, "Affiliate with an Institution" requests information required by VCOM as part of the member profile affiliation. Once complete, click "Next."
    - Select Curriculum: In this section, **select the OSHA Bloodborne Pathogens course**. If you wish to add other courses, you may at any time; however, these are the only training courses required. Note that some Questions require answers (marked with an asterisk). Once done, click "Submit."
    - You will now see the notice that you are enrolled in your selected courses and your registration is complete.
    - You will see your "Courses Ready to Begin" list and the "Start Now" button.
    - Note that a course does not need to be completed all at one time; your progress will be saved whenever you exit.
    - You must achieve an average score of at least 80% on all quizzes to pass the course.
    - Once complete, submit your certificates of completion to Canvas before beginning your research project at: https://canvas.vcom.edu
    - If you have any questions about registration or course selection, please contact Eryn Perry, eperry@vcom.edu

- **Research Primer Modules**
  Completion of all 7 VCOM Research Primer Modules **by Friday at 5:00pm of the 1st week of the FCM course.** The modules are located on VCOMTV under the following pathway: VCOM-CC > Foundations of Clinical Medicine > Research Modules. A report will be generated from VCOMTV to ensure completion by each student. To be sure you get credit for completion, do not use an external accelerator to view the modules. Viewing through an external accelerator will show as incomplete and you will not receive credit for having completed the modules as required.
    - Background Research and Literature
    - Developing a Hypothesis
    - Developing Your Research Plan With Your Research Mentor
    - How to Write a Scientific Manuscript
    - Scientific Publishing
    - How to Give an Effective Presentation
    - Scientific Meetings

- **HIPAA Basics Module**
  Completion of the HIPAA Basics course and associated knowledge assessment questions from Vector Solutions. Students will receive an email from Vector Solutions with a link and instructions for completing the course. Students must submit their completion certificate to CANVAS **by Friday at 5:00pm of the 1st week of the FCM course.**

- **Residency Preparation Modules**
  Completion of the two Residency Preparation modules **by Friday at 5:00pm of the 1st week of the FCM course.** The modules are located on VCOMTV under the following pathway: VCOM-VC > 2025 > Pathways to Residency. A report will be generated from VCOMTV to ensure completion by each student. To be sure you get credit for completion, do not use an external accelerator to view the modules. Viewing through an external accelerator will show as incomplete and you will not receive credit for having completed the module as required.
  - Curriculum Vitae
  - Letter of Recommendation

- **Fatigue Mitigation Module**
  Completion of the Fatigue Module. Students will complete a quiz in Canvas **by Friday at 5:00pm of the 1st week of the FCM course** where they attest to reviewing the module in order to receive credit for completion of this component of the course.

B. **FCM Requirements Week 2 (December 16-20, 2024)**
  The below requirements are due by Friday at 5:00pm of the 2nd week of the FCM course.
  ADPOS students with different dates for the FCM course must still complete the requirements by Friday at 5:00pm of the 2nd week of FCM.

- **Comprehensive Assessment**
  Osteopathic physicians must demonstrate the understanding and application of established and evolving principles of foundational biomedical and clinical sciences integral to the practice of patient-centered osteopathic medical care. This assessment provides a benchmark for the osteopathic medical student to use as a measure of that integrated learning process using a comprehensive, multiple-choice format completed at the conclusion of the first semester of the OMS 3 year.

  Students will create their own 44 question assessment in Truelearn comprised of questions from the disciplines they have already completed a rotation for; hence, the assessment should encompass multiple disciplines and must be completed in timed mode. Completion of the assessment will be graded as Pass/Fail. Students must submit a screenshot of the completed assessment (showing date of completion, number of questions, and score) to CANVAS **by Friday at 5:00pm of the 2nd week of the FCM course.**

C. **Grading**
  FCM is a Pass/Fail course. Students must complete all course requirements to pass the course. The following requirements must be met to pass FCM:

FCM Course Item	Grade Required
FCM Week 1 (July 22 – 26, 2024)	
5 Clinically Relevant Modules	Pass
5 AMA Ed Hub Opioid Therapy and Pain Management Modules	Pass
7 Research Primer Modules	Pass
CITI Training: Protection of Human Research Subjects	Pass
CITI Training: OSHA Blood Borne Pathogens	Pass
HIPAA Basics Module	Pass
2 Residency Preparation Modules	Pass
Fatigue Module	Pass
FCM Week 2 (December 16 – 20, 2024)	
Comprehensive Assessment (44 Truelearn questions of multiple disciplines in timed mode)	Pass

D. Remediation

Students who fail the course will be 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.

- **Failure of the Course**
  If a student fails to complete any portion of the course by the last day of the course 5:00 pm, the student will receive an "F" grade for the course and will be brought before the Promotion Board. If the student is allowed to repeat the course, all components of the course must be repeated. In this case, the "F" grade remains the permanent grade for the initial course and the student will receive a new grade for the repeated course. The grade will be recorded in a manner that designates that it is a repeated course (eg. R-pass).

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. 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.

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. 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.

VIII. FCM Modules

A. Clinically Relevant Modules

One of the goals of FCM is to provide students with an overview of clinical medicine during third year. These modules allow students to 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.

Students must complete both of the clinically relevant modules listed below.

1. **Judicious Use of Antibiotics, Tests, and Procedures**
   Required Reading Assignments:
   - Office-Based Strategies to Combat Antimicrobial Resistance (pdf document in Canvas)
   - Unnecessary Tests and Procedures in the Health Care System (pdf document in Canvas)

   Learning Objectives:
   i. List the reasons physicians should order tests and prescribe medications utilizing the best evidence available.

2. **Review of ECG**
   Online Module: Understanding the ECG: A Comprehensive Course (Parts 1 - 4)
   Learning Objective:
   i. Review basic electrophysiological concepts.
   ii. Review methods in systematic interpretation of ECGs.
   iii. Review arrhythmias, special disease states, and other ECG changes.

3. **Health Systems Awareness**
   Online Module: Health Systems Awareness
   Learning Objective:
   i. Distinguish components of the US health care system based on the level of care
      a. Primary care
      b. Secondary care
      c. Tertiary care
      d. Quaternary care
   ii. Recognize various types and advantages and disadvantages the different medical practice types including:
      a. Solo practice
      b. Group practices
      c. Employed physician practices
      d. Direct (Concierge) primary care

   e. Independent contractor
   f. Locum tenens
  iii. Recognize the key characteristics of patient-centered medical homes
  iv. Identify the health care delivery systems in the United States
   a. Non-profit health systems
   b. For-profit health systems
   c. Veterans Administration
   d. Department of Defense
   e. Indian Health Service
  v. Identify third party payers
   a. Governmental payers
   b. Commercial (Private Insurance) Insurance
  vi. Recall eligibility for Medicare
  vii. Select what services are covered by the four parts of Medicare
  viii. Recall the eligibility for Medicaid
  ix. Recall the eligibility for the Children's Health Insurance Program (CHIP)
  x. Recognize differences between Medicare and Medicaid
  xi. Distinguish between different methods of payment
   a. Fee-for-service
   b. Capitation
   c. Episode-based
   d. Per diem
   e. Global payments
  xii. Distinguish between different types of managed care organizations
   a. Health Maintenance Organization (HMO)
   b. Preferred Provider Organization (PPO)
   c. Point of Service Organization (POS)
   d. Exclusive Provider Organization (EPO)
  xiii. Define moral hazard
  xiv. Recognize the components the of health insurance design and the impact on the delivery of health care
   a. Cost-sharing
    1) Deductibles
    2) Co-pays
    3) Coinsurance
  xv. Identify the components of health insurance design and their impact on the delivery of health care services
   a. Essential health services
   b. In-Network verses Non-Network
   c. Formularies
   d. Preventive care services

4. **Value-Based Purchasing**
   Online Module: Value-Based Purchasing
   Learning Objective:
    i. Define value
    ii. Recall issues with Fee-for-service reimbursement
    iii. Recognize sources of wasteful spending in health care
    iv. Define quality
    v. Recall frameworks of quality
     a. Triple, Quadruple, Quintuple Aims

        b.   Six Aims of Healthcare Quality
- vi.   Recall why addressing quality is important
- vii. Define Pay-for-Performance
- viii. Recognize the role of the Centers for Medicare and Medicaid Innovation
- ix.   Recall the key characteristics of accountable care organizations
- x.   Recall the key characteristics of bundled payments
- xi.   Recall the characteristics of successful pay-for-performance payment models
- xii. Recognize goals of value-based purchasing programs
- xiii. Recall the four domains of the Hospital Value Based Purchasing Program (HVBP)
- xiv. Recall the goals and focus of the Hospital Acquired Conditions Program (HAP)
- xv. Recall the goals and focus of the Hospital Readmissions Reduction Program (HRRP)
- xvi. Identify actions that be taken to improve care and avoid penalties
- xvii. Recognize the impact of value=based purchasing penalties on health systems
- xviii. Recognize which providers must participate in the Quality Payment Program (QPP)
- xix. Recall options for participation in the QP
- xx. Recall QPP requirements for Advanced Alternative Payment Model
- xxi. Identify the four areas of focus of the Merit-based Incentive Payment System (MIPS)
- xxii. Recall how MIPS is funded.

5. **Improving Patient Safety**
   Online Module: [Improving Patient Safety](#)
   Learning Objective:
   - i.   Recognize the scope of the problem of harm to patients within the health care system
   - ii.   Relate why blaming and punishing individuals for errors rarely improves patient safety
   - iii. Identify ways that individuals can foster a safety of culture
   - iv. Identify the Swiss cheese model of accident causation
   - v.   Recognize latent and active errors and their role in causing harm
   - vi. Recognize lapses, slips, violations, and mistakes as they pertain to safety in healthcare
   - vii. Identify how technology can reduce errors in healthcare
   - viii. Identify how the interface between humans and technology can lead to errors
   - ix. Recall several common types of adverse events in health care that occur due to miscommunication
   - x.   Recognize how to conduct an effective briefing
   - xi. Recall the two-challenge rule and when to use it
   - xii. Select the immediate steps caregivers should take when something goes wrong with a patient's care.
   - xiii. Recognize the importance of communicating about adverse events and documenting them.
   - xiv. Recall the three guiding principles for sharing bad news with patients
   - xv. Identify the structure and content of an effective apology

B. **AMA Ed Hub Opioid Therapy and Pain Management 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. 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 shows 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 FCM curriculum will provide students with information regarding the guidelines for prescribing opioids for chronic pain. Students must complete the 5 assigned educational modules, complete the quiz for each module, and submit the certificate of completion for each module to Canvas.

1. **Understanding Pain and Conducting a Pain Assessment: Practical Guidance for Pain Management**
   Online Module: https://edhub.ama-assn.org/interactive/17579464
   Learning Objectives:
   - i. Define and discuss classifications of pain.
   - ii. Describe strategies for assessing pain.
   - iii. Explain the rationale and approaches for mental health assessment as it relates to pain.
2. **Using Non-Opioid Medications: Practical Guidance for Pain Management**
   Online Module: https://edhub.ama-assn.org/interactive/17579479
   Learning Objectives:
   - i. Identify non-opioid medication options for pain management.
   - ii. Discuss mechanism of action, interactions, and recommendations for NSAIDs, acetaminophen, SNRIs, antiepileptics, antidepressants, and topical agents for pain management.

3. **Treating Older Adults: Practical Guidance for Pain Management**
   Online Module: https://edhub.ama-assn.org/interactive/17579490
   Learning Objectives:
   - i. Describe management strategies for common side effects and risks associated with opioid use. Describe strategies for assessing and managing pain in older adults;
   - ii. Discuss treatment options for managing pain in older patients, including non-pharmacologic treatments, non-opioid pharmacologic treatments, and opioids.
4. **Treating Common Pain Conditions: Practical Guidance for Pain Management**
   Online Module: https://edhub.ama-assn.org/interactive/17579505
   Learning Objectives:
   - i. Define the characteristics of common chronic pain conditions.
   - ii. Describe ways to diagnose common chronic pain conditions.
   - iii. Identify management strategies for treating common chronic pain conditions.

5. **Using Opioids Safely: Practical Guidance for Pain Management**
   Online Module: https://edhub.ama-assn.org/interactive/17579512
   Learning Objectives:
   - i. Discuss factors that contribute to the epidemic of opioid morbidity and mortality.
   - ii. Describe the purpose and practices of universal precautions for opioid prescribing.
   - iii. Explain the classification of opioid analgesics and their pharmacologic effects.
   - iv. Describe management strategies for common side effects and risks associated with opioid use.

C. **CITI Training: OSHA Bloodborne Pathogens**
OSHA Bloodborne Pathogens is designed as initial training or annual retraining to meet the requirements of the U.S. Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogen Standard. Directed at researchers, employees, and students who handle or have contact with human blood, tissues, bodily fluids, or other potentially infectious materials. Students must complete the OSHA Bloodborne Pathogens CITI Training Course and submit their certificate of completion to CANVAS.

1. **OSHA Bloodborne Pathogens Standard**
   Online Module: OSHA Bloodborne Pathogens Standard
   Learning Objectives:
      i. Describe the overall requirements for employers and their responsibilities for workers who have occupational exposure to bloodborne pathogens.
      ii. Discuss the topics required to train employees who have occupational exposure to human blood or OPIM.
      iii. Describe an Exposure Control Plan and its required contents.

2. **Hepatitis B Virus (HBV) Vaccination: Routes of Exposure and Routes of Transmission**
   Online Module: Hepatitis B Virus (HBV) Vaccination
   Learning Objectives:
      i. Describe how the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard requirements pertain to the HBV vaccine.
      ii. Explain the HBV vaccine administration schedule.
      iii. Differentiate between workplace exposures and general exposures to bloodborne pathogens outside of work.

3. **Labels and Engineering Controls**
   Online Module: Labels and Engineering Controls
   Learning Objectives:
      i. Recognize the required color and configuration of the universal biohazard symbol.
      ii. Describe the equipment and containers that require labeling with the biohazard symbol.
      iii. Discuss a few of the common engineering controls and examine the recommended work practices associated with their use.

4. **Universal Precautions and Work Practices**
   Online Module: Universal Precautions and Work Practices
   VCOMTV: Occupational Exposure/Needle Stick
   Learning Objectives:
      i. Define universal precautions.
      ii. Recognize the types of PPE used for protection against exposure to bloodborne pathogens and when to select them.
      iii. Identify biomedical wastes and treatment and disposal protocols for the various waste types.

5. **Emergency Response Procedures**
   Online Module: Emergency Response Procedures
   Learning Objectives:
      i. Recognize various emergency incident and exposure response situations.
      ii. Demonstrate how to respond to minor laboratory spills involving biological materials.
      iii. Assemble a biohazard spill response kit for a work area.

E. Research Primer Modules

The modules in the Research Primer will instruct you on the basics of identifying a research idea/hypothesis, conducting background literature studies, conducting the research project, and reporting on the research outcomes. Concepts presented will help you establish a strong skills base in basic and clinical research. The modules are located on VCOMTV under the following pathway: VCOM-CC > Foundations of Clinical Medicine > Research Modules.

1. **Background Research and Literature**
   VCOMTV: [Background Research and Literature](#)
   Learning Objectives:
   - i.   Identify sources of scientific information.
   - ii. Recognize features of a good journal and a good paper.

2. **Developing a Hypothesis**
   VCOMTV: [Developing a Hypothesis](#)
   Learning Objectives:
   - i.   Identify a novel and/or interesting idea.
   - ii. Devise, clearly and concisely, a hypothesis and its significance.

3. **Developing Your Research Plan with Your Research Mentor**
   VCOMTV: [Developing Your Research Plan with Your Research Mentor](#)
   Learning Objectives:
   - i.   Define the differences between different types of studies.
   - ii.   Develop a plan for testing your hypothesis.
   - iii. Clearly formulate your research plan.
   - iv.   Develop a research plan for your OMS 4 paper.

4. **How to Write a Scientific Manuscript**
   VCOMTV: [How to Write a Scientific Manuscript](#)
   Learning Objectives:
   - i.   Select for and evaluate example publications that you can use as models for your manuscript.
   - ii.   Categorize your information before you start writing.
   - iii. Arrange your manuscript beginning with the title, abstract, figures and tables.
   - iv.   Extend your manuscript to include all important components, and then modify manuscript drafts through many iterations.

5. **Scientific Publishing**
   VCOMTV: [Scientific Publishing](#)
   Learning Objectives:
   - i.   Choose a target journal for your publication and identify predatory journals.
   - ii. Distinguish and contrast among the various types of publications and how each differs in its content.

6. **How to Give an Effective Presentation**
   VCOMTV: [How to Give an Effective Presentation](#)
   Learning Objectives:
   - i.   Choose the various presentation types that are best for you and your science.
   - ii.   Discriminate good from bad presentations.
   - iii. Develop high quality presentation materials, either as a projection or a poster.

7. **Introduction to Scholarly Activity - Scientific Meetings and Conferences**
   VCOMTV: [Introduction to Scholarly Activity - Scientific Meetings and Conferences](#)
   Learning Objectives:
       i. Recognize why to attend scientific conferences and who attends them.
       ii. Compare the difference between a conference, symposium, colloquium, and specialty conferences
       iii. Recall what to do before, during and after a conference.
       iv. Identify online tools to search for conferences and attendees.

G. HIPAA Basics

This course focuses on the confidentiality of health care information and your role in protecting medical privacy. Used properly, information about patients and their health care can save lives. But if the same information is used for unauthorized or improper purposes, it can lead to embarrassment, criminal fraud, and legal liability. Students will receive an email with a link and instructions for completing the course. Students must submit their completion certificate to CANVAS.

Online Module: Access instructions have been sent to your email from Vector Solutions

Learning Objectives:
    i. Identify federal regulations establishing security rules for health care records.
    ii. Identify what is considered "Protected Health Information" (PHI).
    iii. Recognize when PHI may and may not be used or released.
    iv. Recognize an individual's responsibility to secure and protect PHI.
    v. Identify potential penalties for unauthorized use or disclosure.

H. Residency Preparation

These presentations will be the first in a series over your next year and a half on applying for residencies. Two important parts of a student's residency application are their curriculum vitae (CV) and having several strong letters of recommendations in their desired specialty and parallel plan.

1. **Curriculum Vitae (CV)**
   Online Module: [Curriculum Vitae](#)
   Learning Objectives:
       i. Choose a CV format and content that creates a great first impression
       ii. Select what to include in a CV to demonstrate your abilities and achieve the best results.
       iii. Develop a CV in line with your skills, knowledge and experience.
       iv. Avoid the common pitfalls when writing your CV.

2. **Letter of Recommendation (LOR)**
   Online Module: [Letter of Recommendation (LOR)](#)
   Learning Objectives:
       i. Discuss the importance, utility and timing of LOR in the residency application process.
       ii. Select letter writers to ask for a strong LOR.
       iii. Recognize the importance of letters specific to specialties of student interest.
       iv. Assemble documents to present to a letter writer including a cover letter, CV, personal statement and ERAS token.

I. **Fatigue**

Providing medical care to patients is physically and mentally demanding. Night shifts, even for those who have had enough rest, cause fatigue. VCOM has adopted fatigue mitigation processes and ensures that there are no negative consequences and/or stigma for using fatigue mitigation strategies. As part of these policies, students are required to receive training on fatigue. Students must complete the Fatigue Module that is part of the LIFE Curriculum created by Duke University Hospital, the UNC Hospitals, the NC AHEC, and the NC Physician's Health Program to assist GME programs, residents, and faculty to prevent, identify, and manage resident fatigue and impairment. Although the module refers to residents, the concepts apply to medical students as well.

Online Module: Fatigue

Learning Objectives:
   i.   Define fatigue and sleep inertia.
   ii. Describe how to recognize excessive sleepiness.
   iii. Discuss the physical, mental, and social consequences of fatigue (i.e. traffic violations, reduced motivation, increased cynicism, increased substance abuse).
   iv. Understand the link between medical error and fatigue.
   v.   Identify strategies for managing fatigue, including optimal napping and prophylactic use of caffeine.
   vi. Predict times of peak and nadir performance.
   vii. Explain the night float system and explore strategies for addressing duty hour issues.
   viii. Understand the shared responsibility of residents, faculty, and programs in managing fatigue to optimize medical care for patients, minimize errors, and enhance resident learning.
   ix. Select an appropriate evaluation for a fatigued resident.