Edward Via College of Osteopathic Medicine

MED 8400/8410/8420/8430/8440
Research and Scholarly Activity Elective – OMS 4

Academic Year 2024 - 2025

COURSE SYLLABUS

Course Director

Ramu Anandakrishnan, PhD
Research Administrator and Instructor
Phone: 703-403-0234
ranandakrishnan@vt.vcom.edu

Research Administration

Kenny Brock, DVM, MS, PhD
Associate Dean for Biomedical Affairs and Research – Auburn Campus
Phone: 334-442-4001
kbrock@auburn.vcom.edu

David Eagerton, PhD, F-ABFT
Associate Dean for Biomedical Affairs and Research - Carolinas Campus
Phone: 864-327-9831
deagerton@carolinas.vcom.edu

Jim Mahaney, PhD
Associate Dean for Biomedical Affairs and Research – Virginia Campus
Phone: 540-231-5338
jmahaney@auburn.vcom.edu

Pawel Michalak, PhD
Associate Dean for Biomedical Affairs and Research – Louisiana Campus
Phone: 318-342-7169
pmichalak@ulm.vcom.edu

Gunnar Brolinson, DO
Vice President for Research
Phone: 540-231-3041
pbrolins@vt.vcom.edu

I. Course Description
During residency training and in clinical practice beyond, all physicians will be required to frequently search out, review and critically appraise a variety of clinical topics in the ever-growing body of medical literature. This scholarly activity provides students the opportunity to further develop skills in reviewing evidence-based medicine, critical thinking, and writing skills, all while working under the mentorship of VCOM clinical or biomedical faculty members. The work must not have been previously published or presented.

Students should recognize that participating in case reports and research are valued by graduate medical education programs and should include these in their CVs and applications. Students should seek to publish or to present a poster on their research projects at Via Research Recognition Day or at other suitable local, regional or national meetings.

Because of fourth-year grading requirements, this course must be completed by February 28 of the OMS 4 year. ADPOS students must contact the course director for their due date.

II. Credits
4 credit hours

III. Suggested Resources
- VCOM Research Primer Modules (taken in Foundations of Clinical Medicine) under the following pathway- VCOM-CC- Foundations of Clinical Medicine- Research Modules: https://vcom.mediasite.com/mediasite/catalog/catalogs/default
- VLMS Research Matcher
- VCOM Library Contacts:
  - Auburn Campus: Hiram Rogers, MLIS, Director for Library Sciences, hhrogers@auburn.vcom.edu
  - Carolinas Campus: Bill Nichols, MLS, Medical Librarian, wnichols@carolinas.vcom.edu
  - Louisiana Campus: Kristy Hutson, BA, Director for Library Services, khutson@ulm.vcom.edu
  - Virginia Campus: Elaine Powers, MSLS, Director for Library Services, epowers@vt.vcom.edu
- Writing an Effective Case Report (Word file)
- How to write a medical book chapter?
- The Process for Writing A Case Report (PDF article from AAP)
- VCOM Policy on Case Reports and Case Series
- VCOM IRB Website

IV. Requirements for Successful Completion

A. Requirements and Grading
All components (Case Report, Research Project Report) must be completed and submitted as indicated.

The following components are required for successful completion of this course:

- **CITI Training: Protection of Human Research Subjects and OSHA Bloodborne Pathogens Courses**
  Students must complete the Protection of Human Research Subjects and OSHA Bloodborne Pathogens CITI Training Courses and submit their certificates of completion to CANVAS before beginning their research project.

  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.
  - Submit your certificates of completion to Canvas before beginning your research project at: http://canvas.vcom.edu
  - If you have any questions about registration or course selection, please contact Eryn Perry, eperry@vcom.edu

  For those who have not yet completed CITI 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 Protection of Human Research Subjects course and 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: http://canvas.vcom.edu

➤ If you have any questions about registration or course selection, please contact Eryn Perry, eperry@vcom.edu

- **Students must complete and submit either a Case Report or Research Project Report**

  o **Case Report**
    Students who choose to complete a Case Report will work with a faculty mentor. In general, this is usually a clinical faculty member (who serves as a preceptor) involved in the care of the patient whose case is the subject of the Case Report. The mentor will help the student to identify a significant and novel case on which to focus. Students must have had direct care involvement with the patient/case in a clinical setting. The work must not have been previously published or presented.

    ➤ Students must have a mentor that is a VCOM faculty member or a clinician/PhD/PharmD/similarly credentialed individual that is affiliated with VCOM.

    ➤ After the student has met and confirmed a mentor that will be providing supervision during their Research Rotation, they must submit the "Mentor Identification Form" to **CANVAS and send a copy to their mentor at least 1 week before the start of their Research Rotation.**

    ➤ If the student has difficulty in identifying a mentor or developing a research idea, they should contact the Course Director who will assist.

    A Case Report is a detailed report of the symptoms, signs, diagnosis, treatment, and follow-up of a patient. Case Reports may contain a demographic profile of the patient but usually describes an unusual or novel occurrence. The Case Report must also include a summary of the review of the current evidence-based literature on the subject matter related to the case topic. Case Reports are typically categorized as one of the following:

    ➤ An unexpected association between diseases or symptoms

    ➤ An unexpected event in the course of observing or treating a patient

- ➢ Findings that shed new light on the possible pathogenesis of a disease or an adverse effect
- ➢ Unique or rare features of a disease
- ➢ Unique therapeutic approaches
- ➢ A positional or quantitative variation of anatomical structures involved

Submission of an IRB application is waved for Case Reports as long as the student adheres to the guidelines for the purpose of a Case Report. See Policy R016: VCOM Policy on Case Reports and Case Series in CANVAS. A Case Report where the IRB is waived, should never recommend new treatments, other interventions, or diagnostics or make generalizations. The Case Report may recommend that further investigation be done.

The Case Report must follow the format and include the components for a Case Report manuscript to be submitted to the Journal of Osteopathic Medicine: https://jom.osteopathic.org/wp-content/uploads/2021/03/JOM-Case-Report-Template.pdf. If another journal is targeted for publication the student should follow that journal's format. If a different journal is targeted for publication, then that journal's format should be followed. In addition, students must be sure that they include all components as indicated in the Case Report Grading Rubric. The Rubric can be found in CANVAS. The allowed manuscript types are: Case Report.

Case Report Length Requirement: A minimum of 1000 words, excluding the title page, abstract, references, and captions, with a minimum of 10 references, excluding website references.

Submission/Grading Process:
- ➢ Students must complete the Case Report Self-Assessment prior to submitting their paper to their faculty mentor and CANVAS for grading. Students should make any necessary corrections to meet the format and content requirements as defined in the journal instructions to authors to ensure compliance with the rubric and requirements. The Case Report Self-Assessment can be found in CANVAS.
- ➢ **By 5:00PM on February 28,** the student must submit their Case Report, the Case Report Grading Rubric, and the completed Case Report Self-Assessment Form to the faculty mentor and CANVAS for grading. The Case Report Grading Rubric can be found in CANVAS.
    - ▪ The faculty mentor must complete grading of the report within 1 week of being provided the report. Students may be required to revise the report based on feedback before receiving a final grade.

Students must complete all course requirements to pass the course. The Case Report will receive a letter grade, and this grade will also be the grade the student receives for the Research and Scholarly Activity credit hours.

Students are encouraged to publish or present their Case Report with the faculty mentor involved in the direct care of the patient listed as a co-author. Journals generally require submissions to include a senior or lead author, with

the following degree(s): MD or DO (completed residency training), PhD, PhD, NP, PA, RN, DDS/DMD. Submissions authored by medical students must contain an MD or DO senior author.

- o **Research Project Report**

  There are many different types of research projects – clinical, basic, educational, sociological, etc. All are potential research projects provided that a suitable hypothesis and project plan can be devised. Such a project should be right-sized to complete the goals for the rotation, with sufficient time to create a high-quality Research Project Report. The work must not have been previously published or presented.

  Students wishing to complete a research project must do so under the guidance of a faculty mentor who has an established research program or the skills and ability to conduct a research program.
  - ➢ Students must have a mentor that is a VCOM faculty member or a clinician/PhD/PharmD/similarly credentialed individual that is affiliated with VCOM.
  - ➢ After the student has met and confirmed a mentor that will be providing supervision during their Research Rotation, they must submit the "Mentor Identification Form" to **CANVAS and send a copy to their mentor at least 1 week before the start of their Research Rotation.**
  - ➢ If you need help identifying a mentor or developing a research idea, please contact the Course Director who will assist you.

  A project devised with a mentor can designed to be completed by several individuals or teams in succession to accomplish the overall project goals. However, such a research project must be organized and broken down into sub-goals. Also, all students are required to submit a research project report. Team members can submit the same report, but such a report must contain a section that details the contributions of each team member to the goals/sub-goals of the project.

  Submission of an IRB application is required for all clinical research projects, surveys, or projects that include human subjects. Surveys of students of faculty within the college are not approved for this project.

  All students conducting research must also complete the Responsible Conduct of Research training modules. See:
  https://www.vcom.edu/research/irb/required-education

  All students working in a laboratory must complete Laboratory Safety Training. Contact the lab manager or the Associate Dean for Research on the respective campus for more information about any required training.

  The Research Project Report must follow the format and include the components for a Original Article manuscript to be submitted to the Journal of Osteopathic Medicine: https://jom.osteopathic.org/wp-content/uploads/2021/03/JOM-Original-Article-Template.pdf. If another

journal is targeted for publication the student should follow that journal's format. If a different journal is targeted for publication, then that journal's format should be followed. The allowed manuscript types are: Original Article.

Research Report Length Requirement: A minimum of 1500 words, excluding the title page, abstract, references, and captions, with a minimum of 15 references, excluding website references.
In addition, students must be sure that they include all components as indicated in the Research Project Report Grading Rubric. The Rubric can be found in CANVAS.

If a student chooses to complete a Research Project, they **must submit a Research Project Plan that includes the project title, description, and research plan (together as 1 page) as agreed to by the student and the mentor along with the "Mentor Identification Form" to CANVAS at least 1 week before the start of your Research Rotation.** This plan will be reviewed for approval by the Course Director.

Submission/Grading Process:
➢ Students must complete the Research Project Report Self-Assessment prior to submitting their paper to their faculty mentor and CANVAS for grading. Students should make any necessary corrections to meet the format and content requirements as defined in the journal instructions to authors to ensure compliance with the rubric and requirements. The Research Project Report Self-Assessment can be found in CANVAS.
➢ **By 5:00PM on February 28,** the student must submit their Research Project Report, the Research Project Report Grading Rubric, and the completed Research Project Report Self-Assessment to the faculty mentor and CANVAS for grading. The Research Project Report Grading Rubric can be found in CANVAS.
➢ The faculty mentor must complete grading of the report within 1 week of being provided the report. Students may be required to revise the report based on feedback before receiving a final grade. The report will be returned to the student if necessary for corrections to meet the format and content requirements as defined in the journal instructions to authors.

Students must complete all course requirements to pass the course. The Research Project Report will receive a letter grade, and this grade will also be the grade the student receives for the Research and Scholarly Activity credit hours.

In accordance with VCOM's grading policy, the College defines satisfactory performance as 70% or above in the course. A final course grade of less than 70% will result in an "F" grade for the course and the student will be brought before the Promotion Board.

Course Item	Contribution to Final Grade
Case Report or Research Project Report	100%

V. Grading Scale
The OMS 4 paper is graded as Honors, High Pass, Pass, or Fail based on the number of points received on the grading rubric and is non-GPA accountable.

Letter Grade	Points
H – Honors	90 – 100
HP – High-Pass	80 – 89
P - Pass	70 – 79
F - Fail	<70

VI. 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. Failure of the Course
If a student fails to complete any portion of the course or fails to earn a C (70%) or better on the Case Report or Research Project Report, 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 rotation (e.g. R-pass).

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.

VII. 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: https://vcom.cld.bz/VCOM-College-Catalog-and-Student-Handbook/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

VIII. Syllabus and Rotation Schedule
Please use this syllabus as a guide, paying particular attention to the requirements for each project.

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.