MED 8700
Research and Scholarly Activity – OMS 3
Academic Year 2023 - 2024

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 Provost 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. 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.

II. **Credits**
4 credit hours

III. **Suggested Resources**
- CREDO Research Matcher
- VCOM Library Contacts:
  - Auburn Campus: Hiram Rogers, MLIS, Director for Library Sciences, hrogers@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?](Word file)
- [The Process for Writing A Case Report](PDF article from AAP)
- [VCOM Policy on Case Reports and Case Series](Word file)
- [CITI Account Set up for Protection of Human Research Subjects Training](Word file)
- [VCOM IRB Website](Word file)
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:

- **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 they will provide supervision during the Research Rotation, the student must submit the “Mentor Identification Form” to CANVAS at least a week before the start of your 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 waived 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. 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 mentor 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 the dates below the student must:

- Submit their Case Report, the Case Report Grading Rubric, and the completed Case Report Self-Assessment Form to the faculty mentor 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.
- Submit their Case Report and the completed Case Report Self-Assessment Form to CANVAS.

Due Dates:

- Students who have their research rotation during periods 2, 3 or 4 must submit by 5:00PM on November 1 to CANVAS and to the faculty mentor.
- Students who have their research rotation during periods 5 or 6 must submit by 5:00PM on January 2 to CANVAS and to the faculty mentor.
- Students who have their research rotation during periods 7, 8, or 9 must submit by 5:00PM on April 1 to CANVAS and to the faculty mentor.
- Students who have their research rotation during periods 10 or 11 must submit by 5:00PM on May 31 to CANVAS and to the faculty mentor.
- ADPOS students who have their research rotation after period 11 must contact the course director for their due date.
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.

- **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 you have met and confirmed with your mentor that they will be providing supervision during your Research Rotation, please submit the “Mentor Identification Form” to CANVAS at least 1 week before the start of your 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. 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 maximum 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 report for Administrative Review. 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.

The Research Project Report will be Administratively Reviewed by the Course Director prior to the report being submitted to the faculty mentor for grading. 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.

By the dates below the student must:
- Submit their Research Project Report and completed Research Project Report Self-Assessment to CANVAS for Administrative Review.
  - Students who have their research rotation during periods 2, 3 or 4 must submit by 5:00PM on November 1 to CANVAS.
  - Students who have their research rotation during periods 5 or 6 must submit by 5:00PM on January 2 to CANVAS.
  - Students who have their research rotation during periods 7, 8, or 9 must submit by 5:00PM on April 1 to CANVAS.
  - Students who have their research rotation during periods 10 or 11 must submit by 5:00PM on May 31 to CANVAS.
  - ADPOS students who have their research rotation after period 11 must contact the course director for their due date.
- Within 1 week of the passing the Administrative Review, 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 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 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.

<table>
<thead>
<tr>
<th>Course Item</th>
<th>Contribution to Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Report or Research Project Report</td>
<td>100%</td>
</tr>
</tbody>
</table>

V. Grading Scale

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numeric Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
</tr>
<tr>
<td>B+</td>
<td>85 - 89</td>
</tr>
<tr>
<td>B</td>
<td>80 - 84</td>
</tr>
<tr>
<td>C+</td>
<td>75 - 79</td>
</tr>
<tr>
<td>C</td>
<td>70 - 74</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 70</td>
</tr>
</tbody>
</table>

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](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.