I. **Rotation Description**
   Students must apply to the Office of Clinical Affairs to determine if the proposed Elective is approved (VII Elective Research Sponsorship Form). Students require the sponsorship of a mentor who has at least one of the following:
   a. An academic appointment with a medical school
   b. An association with a research organization such as:
      i. CDC
      ii. NIH
      iii. A specialty college
      iv. A post-doctoral program or teaching hospital with a structured research elective

II. **Rotation Goals**
   a. To increase knowledge in the subject area chosen through concentrated study
   b. To perform a meta-analysis of the current texts and journal literature on a research topic and condense that knowledge into a usable reference resource that can be applied clinically or to a basic science research model
   c. To form and structure an appropriate research hypothesis or question
   d. To structure and implement a research plan, gather data and formulate a written report
   e. To participate with meaningful involvement in an ongoing project with full understanding of the research question, the research plan, data collection and data analysis

III. **Rotation Design**
   The Research rotation can occur in a clinic or laboratory setting.

IV. **Credits**
   4 week course = 4 credit hours
V. Research Summary Report Guidelines
The completion of the research and the report may extend beyond the time period of the 4 week rotation. Within three months of the elective, the student should submit a formal research report including:

a. Title page
b. Abstract
c. Introduction (may include some of meta-analysis for description of reasoning of research design)
d. Description of research hypotheses or question and research techniques employed
e. Description of research data obtained
f. Summary of findings (this should involve the meta-analysis as well as the findings of the student research and must include how this compares to or utilizes current literature)

VI. Course Grading/Requirements for Successful Completion of the Research Rotation

a. Attendance according to VCOM and preceptor requirements
b. Preceptor Evaluation at end-of-rotation

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

VII. Clinical Performance Objectives
The end-of-rotation evaluation for this rotation will be completed by your preceptor and is based on clinical core competencies. These core competencies reflect student performance in 6 key areas: communication, problem solving, clinical skills, medical knowledge, osteopathic medicine and professional and ethical considerations.

Your end-of-rotation evaluation from your preceptor will be based directly on your performance in these 6 core competencies as described below.

a. Communication - the student should demonstrate the following clinical communication skills:
   1. Effective listening to patient, family, peers, and healthcare team
   2. Demonstrates compassion and respect in patient communications
   3. Effective investigation of chief complaint, medical and psychosocial history specific to the rotation
   4. Considers whole patient: social, spiritual & cultural concerns
   5. Efficiently prioritizes essential from non-essential information
   6. Assures patient understands instructions, consents & medications
   7. Presents cases in an accurate, concise, well organized manner

b. Problem Solving – the student should demonstrate the following problem solving skills:
   1. Identify important questions and separate data in organized fashion organizing positives & negatives
   2. Discern major from minor patient problems
   3. Formulate a differential while identifying the most common diagnoses
   4. Identify indications for & apply findings from the most common radiographic and diagnostic tests
   5. Identify correct management plan considering contraindications & interactions

c. Clinical Skills - the student should demonstrate the following problem solving skills:
   1. Assesses vital signs & triage patient according to degree of illness
   2. Perform good auscultory, palpatory & visual skills
3. Perform a thorough physical exam pertinent to the rotation

d. Osteopathic Manipulative Medicine - the student should demonstrate the following skills in regards to osteopathic manipulative medicine:
   1. Apply osteopathic manipulative medicine successfully when appropriate
   2. Perform and document a thorough musculoskeletal exam
   3. Utilize palpatory skills to accurately discern physical changes that occur with various clinical disorders
   4. Apply osteopathic manipulative treatments successfully

e. Medical Knowledge – the student should demonstrate the following in regards to medical knowledge:
   1. Identify & correlate anatomy, pathology and pathophysiology related to most disease processes
   2. Demonstrate characteristics of a self-motivated learner including demonstrating interest and enthusiasm about patient cases and research of the literature
   3. Are thorough & knowledgeable in researching evidence based literature
   4. Actively seek feedback from preceptor on areas for improvement
   5. Correlate symptoms & signs with most common diseases

f. Professional and Ethical Behaviors - the student should demonstrate the following professional and ethical behaviors and skills:
   1. Is dutiful, arrives on time & stays until all tasks are complete
   2. Consistently follows through on patient care responsibilities
   3. Accepts & readily responds to feedback, is not resistant to advice
   4. Assures professionalism in relationships with patients, staff, & peers
   5. Displays integrity & honesty in medical ability and documentation
   6. Acknowledges errors, seeks to correct errors appropriately
   7. Is well prepared for and seeks to provide high quality patient care
   8. Identifies the importance to care for underserved populations in a non-judgmental & altruistic manner

g. Osteopathic Manipulative Medicine Components
   Students must be familiar with the OMM didactic and workshop requirements for their OMS-4 year as described in the Osteopathic Manipulative Medicine website
VIII. Research Elective Sponsorship Form

Student's Name:

Dates of Elective:

Title of Research:

Brief Description of Research Project:

Research Selective Location:

Name, Address, and contact information of Sponsor:

I agree to sponsor the above student for this research project for the period of time designated above. I have read the description, goals, design and guidelines for this rotation. I agree to monitor the student’s progress, mentor the student in research skills, and to evaluate the student at the end of the period. I agree that the project report may take some time for analysis and that I will provide a final evaluation of that report.

Signature of sponsor: _____________________________ Date __________
IX. Research Elective Evaluation

Student’s Name:
Dates of Elective:
Title of Research:

Did the student perform the research objectives as outlined in the Research Elective Sponsorship Form? Y N
Comment:

Did the student accomplish the research expectations for the rotation including:

1. Performed the meta-analysis of the literature appropriately Y N
2. Structured an appropriate research question Y N
3. Structured and implemented the research program or participated actively in an ongoing research program with full understanding of the structure and implementation Y N
4. Provided an accurate summary of the research activity and data gathered during the rotation Y N

Overall evaluation of the student for the research month (circle one):

Fail Pass High Pass Honors

Comment:

Sponsor signature: ______________________ Date: ______________________
Sponsor name printed: ______________________