

**Ohio University College of Osteopathic Medicine  
Centers for Osteopathic Research and Education  
Class of 2010 Elective Research Rotation**

*Last update: 09.30.08*

<b>Course Title:</b>	<b>Introduction to Research</b>
<b>Instructor of Record:</b>	<b>Peter B. Dane, D.O.</b>
<b>Credit Hour:</b>	<b>3 credits</b>
<b>Rotation Length:</b>	<b>1 week</b>
<b>Prerequisites:</b>	<b>Family Medicine Clerkship</b>

**Syllabus Components**

1. Rotation Description, Purpose and Philosophy
2. Rotation Objectives
3. Orientation to Rotation
4. Required Activities and Assignments
5. Student Performance Evaluation
6. Recommended Resources
7. Standards of Professional Conduct
8. Tips for Successfully Completing the Rotation

**1. Rotation Description, Purpose, and Philosophy**

The purpose of this rotation is to provide the student with the opportunity to develop or enhance his/her knowledge and skills to a level appropriate for a beginning researcher in preparation for engaging in an actual research study.

To accomplish this, the rotation provides a broad overview of research via didactics, observations, and hands-on activities on a variety of topics that include: critical review of the literature, research methods, life cycle of a research study, human and animal subject protection, shadowing a researcher, development of a research protocol, introduction to statistics, funding and resources, budget creation, and dissemination. Throughout the rotation, students should have multiple opportunities to observe different aspects of research and to practice problem-solving skills.

Interests of the student will determine the specific nature of the activities. Variations in the rotation schedule will be negotiated with the student's CORE assistant dean. Exposure to clinical, educational, health policy, outcomes, and basic science research, as well as other types of studies, are allowed.

Students electing to register for a research rotation will be expected to manage all aspects of their study. This may require the student to meet with other students, faculty, or support personnel from the CORE Research Office (CRO) to discuss progress and problems. If needed, distance-learning equipment can be used to facilitate such meetings. Students will also meet regularly

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with their research advisor and their CORE assistant dean to confirm that research goals are being met. Students are responsible for arranging any and all necessary meetings.

### 2. Rotation Objectives

Learning objectives for this rotation should guide the student's learning activities and serve as a baseline for assessment of the student's enhanced knowledge, skills, and professional behavior.

#### Rotation Objectives: Knowledge Domain

1. State a research hypothesis.
2. Define research/project objectives.
3. Effectively review the literature.
4. Determine the components of a research protocol.
5. Explain the importance of required documents, determine when needed, and describe the processes involved (e.g., CITI Human subjects protection training, Institutional Review Board, Informed Consent Process, etc.).
6. Understand and identify funding sources, and importance of budget creation.
7. Describe the process involved in proper and legal collection of data or information.
8. Understand the importance of translating the results of the study into a more practical or actionable outcome and the implications of the study outcome.
9. Understand and be able to justify the importance of a study and its contribution to evidence-based medicine.
10. Understand the process of disseminating research findings.

#### Rotation Objectives: Research Skills Domain

During this elective rotation, the student is expected to develop her/his competencies in the following research skills. The expected level of student engagement in the skills being developed: Observe (O), Assist (A), Master (M).

1. Attend all assigned lectures and meetings, and successfully complete assignments. (A)
2. Critique literature and published studies. (A)
3. Determine the components of a research proposal. (A)
4. Understand and explain the necessary steps and documents required for human and animal subjects protection. (O)
5. Interpret statistical results and findings. (O)
6. Understand the components of an effective data gathering/collection plan. (A)
7. Distinguish literature pertinent to study from a multitude of references. (A)
8. Formulate a research question and hypothesis. (A)
9. Determine role of funding, resources, and budget in research proposals.
10. Understand the role and importance of research and its contribution to evidence-based medicine. (A).

### 3. Application Process for the Rotation

The application process for this rotation orientation provides an opportunity to set/clarify expectations, answer questions and define roles, assess skill level and experience, and anticipate and proactively resolve problems. The student must meet with the CRO Director prior to registration for this rotation. S/he should be prepared to share past research experiences and personal objectives for this rotation with the CRO Director. Clarifying the following details with the CRO Director will help to ensure a rewarding and successful rotation:

- a. Specific student responsibilities on the rotation.
- b. Specific CRO Director expectations of the student on the rotation.

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- c. Goals, objectives, structure, timeline, and expected measurable outcomes and deliverables of the rotation.
- d. Required rotation assignments (e.g. data collection, protocol development, presentation of results to conferences and research days, submission of manuscript to peer reviewed journal, co-authorship).
- e. During this application process, the student and the CRO Director should negotiate specific times (e.g. mid-rotation.) when feedback on student performance will be provided.

### 4. Required Learning Activities, Assignments, and Responsibilities

Satisfactory completion of the following activities is required to receive credit for this rotation:

- a. Meeting all objectives and deliverables identified by the CRO Director and specified in the Research Rotation Form within the timeframe indicated.
- b. Submission of the written evaluation within 2 weeks of the end of the rotation.
- c. Submission of the online Student Rotation Evaluation through New Innovations.
- d. **Submission of all requirements/deliverables to the preceptor, CORE Research Office and Predoctoral Education Office within 2 weeks of the end of the rotation.**

### 5. Student Performance Evaluation

A student's grade for this rotation will be based on completion of all assignments and the following criteria.

#### The CRO Director's Written Evaluation

A student must receive a passing grade from the CRO Director in order to pass the rotation. If the preceptor and CORE Research Office consider the student's progress to be *Marginal*, then a remediation recommendation will be developed by the CORE Assistant Dean, in consultation with the CRO Director, and submitted to the Associate Dean for Predoctoral Education for approval. If the preceptor or CORE Research Office fails the student, the student is awarded a grade of "F" for the rotation. The failure report must be forwarded to the Associate Dean for Predoctoral Education and to the Committee on Student Progress (CSP).

### 6. Recommended Resources

1. Contact the CORE Research Office at 740-593-2380 for more details and resources available (abstract databases, bibliographic database, study funding, travel funds, and methodological, statistical, editorial, and dissemination services).
2. Log on to: [www.ohiocoreonline.org/research](http://www.ohiocoreonline.org/research) for more information on conducting research and research resources available to pre-doctoral trainees.
3. Leedy, Paul D. and Ormrod, Jeanne E. (2004)(8th ed.). *Practical research: Planning and design*. Upper Saddle River, NJ: Merrill Prentice Hall.

#### **Recommended Reading**

*Additional recommended resources for ALL rotations are included in the Book List for the Class of 2010.*

### 7. Standards of Professional Conduct

The OU-COM Honor Code applies to all activities in the CORE as well as on the Athens campus.

Compliance with the professional standards of the Osteopathic profession, as well as with the professional standards of the hospital and outpatient offices of the student's preceptor, is a requirement for receiving academic credit for this rotation. Students are expected to maintain high professional standards of behaviors by consistently demonstrating such personal characteristics as honesty and integrity, as well as maintaining patient confidentiality at all times.

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Violation may result in a failing grade in this rotation, regardless of other academic performance on this rotation, and could subject the student to dismissal from the hospital in which they are based. Such professional conduct shall be evaluated by the CORE Assistant Dean through observation of and interaction with the student, his/her preceptor, other hospital attending physicians and staff.

### **8. Tips for Successfully Completing the Rotation**

Being successful on this rotation requires you to be a proactive student. Taking an interest in the specialty and becoming an active team member of the service is critical to learning in a clinical setting. Remember, the clinical learning environment differs from the classroom. You will be “thinking on your feet” and “learning as you go.” To capitalize on “the learning moment,” seek out opportunities to ask questions and speak up appropriately.

In addition, be sure to:

1. review the syllabus to ensure that you understand all requirements.
2. discuss your previous research experiences and personal goals and objectives for this rotation with the CRO Director. The rotation application process is an opportune time to initiate this discussion and to develop positive rapport with you preceptor.
3. clarify the CRO Director’s expectations of your activities.
4. come prepared to take advantage of the opportunities this rotation has to offer.

*If you have any questions, contact your CORE Administrator or CORE Assistant Dean.*