



Edward Via College of Osteopathic Medicine

4th Year Elective Rotation: Orthopedic Anatomy

MED 8440 – Elective V – Orthopedic Anatomy

COURSE SYLLABUS

Course Director: Krista Johansen, MD

Faculty: Anatomy Faculty and Clinical Faculty Mentors/Consultants (to be determined)

Location: VCOM-VC

I. Rotation Description

The Orthopedic Anatomy Elective is designed for 4th year students to prepare for residency by gaining advanced musculoskeletal anatomy training through dissections, individual projects, seminars and teaching assistantships. The dissection component of the course involves clinically relevant musculoskeletal dissection and implementation of an individual dissection project. Students will be assigned faculty mentors and may consult clinicians for their project. The projects will be well-researched case and procedure based dissections with accompanying educational materials. The seminars will complement the dissections, be used to discuss cases and procedures, and ensure mastery of the musculoskeletal anatomy for residency. Students will develop teaching and presentation skills to be used in seminar and the pre-clinical gross-anatomy laboratory. At the end of the course, each student will give a final presentation of their project.

Application is required for acceptance to the elective

II. Rotation Goals

a. Goals

1. Use clinical experience from 3rd and 4th year to develop a deeper understanding of the anatomic basis for orthopedic practice
2. Achieve intern-level mastery of musculoskeletal anatomy
2. Apply anatomic knowledge to the orthopedic physical exam, orthopedic imaging, clinical conditions and procedures
3. Develop advanced dissection skills and procedural skills
4. Develop teaching, presentation and communication skills
5. Conduct scholarly activity resulting in a presentation

III. Rotation Design

The Orthopedic Anatomy elective will occur in the gross anatomy laboratory and seminar room (some seminars may take place in the lab) and the independent study component of this rotation may be done in the library or other appropriate study location. Students participating in this elective will collaborate with a mentor.

IV. Credits

4 week course = 4 credit hours

V. Suggested Textbooks and References (most available online at VCOM library or other sites)

- a. Campbell's Operative Orthopedics
- b. Sabiston Textbook of Surgery
- c. Musculoskeletal Imaging (Pope)
- b. Moore, Dalley, Agur's Clinically Oriented Anatomy
- c. Grant's Dissector (PDF available to students)
- d. Online resources and journal articles pertaining to the student's project such as:
 - Journal of Orthopedics
 - Case reports in Orthopedics
 - Orthopedic radiology

VI. Course Grading/Requirements for Successful Completion of the Advanced Clinical Anatomy Selective

- a. Attendance according to VCOM and faculty requirements
- b. Mentor evaluation at end-of-rotation based on rotation performance objectives

VII. Rotation Performance Objectives

a. Medical Knowledge: Orthopedic Anatomy - the student should demonstrate the following in regards to medical knowledge:

1. Demonstrates anatomic knowledge appropriate for their level of training
2. Describes the anatomic basis for physical exam
3. Correlates anatomy to radiologic studies
4. Understands the anatomic foundation of surgical procedures
5. Applies anatomic reasoning to common medical conditions
6. Demonstrates efficiency & knowledge in researching evidence based literature

b. Project design, implementation and completion– the student should demonstrate the following with respect to the rotation project:

1. Project is timely and relevant to the area of interest in orthopedic anatomy
2. Identified project-specific objectives with mentor
3. Literature search completed and appropriate to the project, references appropriately used and sited
4. Dissection project demonstrates advanced dissection techniques and produces high quality specimens
5. Actively seek feedback from mentor on areas for improvement
6. Project resulted in a clinical dissection with educational materials

c. Presentation skills: the student should demonstrate the following presentation skills:

1. Presents in organized and logical manner
2. Timing and pace is appropriate
3. Illustrations or other materials are of high quality and relevant to the topic and referenced where necessary
4. Efficiently prioritizes essential from non-essential information

d. Teaching skills: the student should demonstrate the following teaching skills:

1. Explains anatomic knowledge in an accurate, concise and well organized manner to preclinical students
2. Discusses the clinical relevance of anatomic concepts and structures
3. Facilitates pre-clinical students' engagement in the laboratory
4. Assists pre-clinical students' in effective dissection practice
5. Able to effectively listen and answer pre-clinical students' questions
6. Assures that pre-clinical students understand dissection instructions, availability of resources and anatomy pertinent to the laboratory session

e. Discussion skills: the student should demonstrate the following skills in seminar

1. Comes prepared for seminar discussion
2. Contributes consistently and meaningfully to the discussion
3. Demonstrates critical thinking skills
4. Uses evidence based material during discussion
5. When facilitating the discussion, the chosen topic appropriate for the time allotted, questions evoke critical thinking and student engages peers in discussion

f. Osteopathic Manipulative Medicine - the student should demonstrate the following skills in regard to osteopathic manipulative medicine:

1. Able to relate relevant OMM techniques to orthopedic anatomy

g. Professional and Ethical Behaviors - the student should demonstrate the following professional and ethical behaviors and skills:

1. Is dutiful, arrives on time and stays until all tasks are complete
2. Consistently follows through on rotation responsibilities
3. Accepts and readily responds to feedback, is not resistant to advice
4. Assures professionalism in relationships with faculty, staff, and peers
6. Acknowledges errors, seeks to correct errors appropriately
7. Is well prepared for and seeks to provide competent teaching and project duties
8. Demonstrates characteristics of a self-motivated learner including interest and enthusiasm about patient cases and research of the literature
9. Demonstrates respect in student and faculty communication