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## **Musculoskeletal Sequence**

### **November 2-20, 2009**

#### **General Themes**

1. Muscle Physiology
2. Muscle Metabolism
3. Histology of the musculoskeletal system
4. Gross Anatomy of the musculoskeletal system
5. Radiology of the musculoskeletal system

#### **Overall Sequence Intended Learning Outcomes (ILOs)**

##### **Knowledge**

1. Understand the fundamental principles of muscle physiology and clinical problems of abnormal muscle physiology.
2. Understand the biochemical basis of muscle metabolism and clinical issues of abnormal muscle metabolism.
3. Be able to identify the cells and tissues of the musculoskeletal system and understand their functions, important relationships, and associated common clinical problems.
4. Be able to identify the anatomical components of the musculoskeletal system and understand their functions, important relationships, and associated common clinical problems.
5. Understand the fundamental principles and applications of modern imaging techniques and be able to identify normal musculoskeletal anatomy using common clinical imaging modalities.

##### **Skills**

1. Become proficient at recognizing the cells and tissues of the musculoskeletal system.
2. Become proficient at anatomical dissection and recognition of anatomical structures.
3. Become proficient at recognizing anatomical structure using common imaging modalities.
4. Become proficient at presenting anatomical and clinical information in a concise and precise manner.

##### **Professionalism**

1. Approach peer teaching with commitment to quality and responsibility to peers.

2. Approach peer evaluation with responsibility and commitment to quality improvement.

3. Approach human dissection with commitment to learning and respectful treatment of body donors.

**Faculty for the Musculoskeletal sequence**

Thomas R. Gest, PhD, Sequence Director  
Associate Professor of Anatomical Sciences

Andrew Barnosky, MD,  
Clinical Assistant Professor of Emergency Medicine

Catherine Brandon, MD, MS  
Assistant Professor of Radiology

Clifford L. Craig, MD  
Clinical Associate Professor of Orthopedic Surgery

David Jamadar, MD  
Clinical Associate Professor of Radiology

Sun-Kee Kim, PhD  
Associate Professor of Cell and Developmental Biology

Lawrence R. Kuhns, MD  
Professor of Radiology

Lisa Larkin, PhD  
Associate Research Professor of Physiology  
Department of Biomedical Engineering

Paul A. Weinhold, PhD  
Professor of Biological Chemistry

## **Required Experiences**

In the Musculoskeletal sequence there are several required experiences. In the **RARE** circumstance where a student cannot attend, the student must contact their class counselor in advance (or as soon as possible in an emergency) to request a deferral. (Please do NOT contact sequence directors with requests for or explanations of deferrals.) Absences will be approved or denied by class counselors based on the same guidelines used for Quiz and Exam deferrals. Should you obtain a deferral from your class counselor, make up instructions for the required experiences (found below) should be followed.

For the Required Patient Presentation, the remediation will be watching the video and a 2-page response paper describing the patient presentation. This must be submitted to Dr. Gest.

For the Physiology Small Groups, the remediation will be writing answers to the small group question. This must be submitted to Dr. Larkin.

## **Grading**

There will be 2 quizzes and a final exam for the musculoskeletal sequence. On the quizzes, there will be 2 or 3 questions from each lecture or learning module of that week. There will both written and practical portions of the final exam. On the written portion of the final exam, there will be approximately 2 questions from each lecture or learning module already covered on a quiz, and approximately 4 questions from each lecture or learning module given in the week of the final exam. On the practical exam for gross anatomy, there will be approximately 4 questions for each laboratory session.

All quiz and exam questions are worth 1 point. All points will be added together at the end of the sequence, and a minimum of 75% will constitute a passing grade.