Geriatric Fractures 8:30-5:45

8:30 9:30 **Introduction**
- Osteoarthritis
- Joint replacement

9:30 10:30 **Relevant Anatomy and Integration of the Core with Lower Extremities** (Lecture/Lab)
- The core stabilizers vs mobilizers
- Recruiting global reflexive firing patterns
- Core facilitation/extremity integration and approximation (LAB)
- Lumbopelvic and knee anatomy
- SLR-pelvis/hip disassociation, mobility/stability and progressions (LAB)

10:30 10:45 **Break**

10:45 11:45 **Hip and Pelvis (Lecture/Lab)**
- Hip and pelvis anatomy and mechanics overview
- Hip fractures and joint deterioration
- Pelvic control (LAB)
- Pelvis fractures
- Hip disassociation (LAB)

11:45 12:30 **Orthopedic Healing and Hardware**
- Stages of healing
- Bone healing: radiographic steps
- Reduction and fixation of fractures
- Fracture fixation device
- Orthopedic rehabilitation protocols
- Orthopedic rehabilitation considerations
- General weight bearing guidelines

12:30 1:00 **Lunch**

1:00 2:15 **Total Hip Arthroplasty (THA)**
- Various surgical approaches (including anterior approach) and prosthetic design
- Sample THA protocol

2:15 3:00 **Total Knee Arthroplasty (TKA)**
- Knee anatomy and mechanics overview
- Sample TKA protocol
- RNT (LAB)

3:00 3:15 **Break**

3:15 4:00 **Total Knee Continued**

- Minimally invasive technique
- Bilateral TKA
- Review of literature on Continuous Passive Motion (CPM) and Neuromuscular Electrical Stimulation
- Patella and tibia plateau fractures

4:00 5:15 **Hip and Knee Therapeutic Exercise and Activities (Lecture/Lab)**

- Glute bridges set up
- Hip (Lab)
- Reflexive muscular actions and training
- Gait ther-ex, balance, footwork
- Closed kinetic chain work
- Squat vs deadlift
- Hip hinge/deadlift (LAB)

5:15 5:45 **Summary/questions**

Objectives

- Review the latest surgical advances in joint replacement surgery, total versus partial or hemi replacement, joint resurfacing, tissue sparing, minimally invasive technique
- Describe the relevant anatomy and biomechanics of the kinetic chain for the pelvis, hip and knee
- Answer how does underlying pathology dictate choice of orthopedic procedure, joint replacement prosthetic design and fixation choices, rehabilitation program design, and typical functional outcomes achieved
- Review and utilize orthopedic healing principles and radiographic evidence as it relates to post-operative rehabilitation
- Describe common orthopedic hardware used in open reduction internal fixation surgery and weight bearing implications
- Review the latest evidence on the use of CPM
- Based on best available evidence, develop and prescribe effective rehabilitation programs utilizing functional exercises that consider proprioceptive input, reflexive stabilization, and tendon healing timelines for the latest orthopedic surgeries