Course Objectives

Session I: Foot and Ankle
Fibula Shortening in Ankle Fractures:
1. Recognize the comminuted fibula fracture that is not reducible without a mechanical distracter.

Plantar Plate Repair of the MTP joint
1. To identify a plantar plate rapture and know how to repair it.
2. Understand post op management of this procedure.

Session II: Joint
Direct Anterior Approach for the Total Hip Arthroplasty-cadaveric lab
1. Anatomic dissection of the DA approach
2. Safe elevation of the femur for broaching
3. Radiographic tips and tricks for component positioning

MRI based custom cutting jigs for Total Knee Replacement:
1. To improve coronal alignment in Total Knee Replacement
2. To improve OR efficiency during Total Knee Replacement

Patellofemoral Replacement/UNI’s:
1. To identify the indications, risks, and benefits of Patella-Femoral Replacements.

Session II: Spine
Adult Deformity: The Role of Lateral Interbody Fusion and MIS Surgery
1. Understand the indications, risks and benefits of minimally invasive lateral interbody fusion.
2. Understand the indications, risks and benefits of anterior, posterior and dynamic stabilization in lateral interbody fusion procedures.

Update on Cervical Disc Arthroplasty
1. Understand the indications, risks and benefits of cervical disc arthroplasty.
2. Review evolution implant designs.

Surgical Management of Vertebral Compression Fractures
1. Identify risks, benefits, and complications of traditional open versus minimally invasive surgery for adult deformity
2. Identify the indications and outcomes for cervical disc arthroplasty
3. Identify the indications, risks, and benefits of kyphoplasty for vertebral compression fractures

Breakout Sessions 1

Session 1A: Orthopedic
Peroneal Sulcus Lesion:
1. Be aware of this previously unstated lesion and know how to repair it.
Syndesmotic fixation with suture button technique (Arthrex Tightrope)
1. To learn the suture button technique of syndesmotic stabilization
2. Understand the pros/cons compared with screw fixation

**Session 1B: Orthopedic**
Managing Osteoporosis in an Orthopedic Practice, Supplementing Post Fracture Care
1. Discuss rationale of addressing osteoporosis in the orthopedists’ office
2. Discuss reasonable secondary fracture prevention measures

Joint Replacement Trends at AAMC
1. Overview of joint replacement multidisciplinary program at AAMC.
2. Ongoing research initiatives in joint replacement at AAMC.

**Session 1C: Rehabilitation**
Rehabilitation for Golfers:
1. Identify common pathologies of the golfer’s upper extremity, spine and hip
2. Understand the biomechanics of the golf swing
3. Design a program of golf-specific therapeutic exercise for the upper and lower extremity

Rehabilitation for Tri-athletes:
1. Evaluate and treat common injuries in runners, swimmers, and bikers
2. Describe and explain the basic biomechanics of swimming and biking as well as ability to correct common deficiencies.

**Session 1D: Rehabilitation**
Running/Gait Analysis Lab
1. Understand basic concepts of video gait analysis and what patient populations would be appropriate for this type of assessment.
2. Understand how Physical Therapy Evaluation and can identify patho-mechanical movement and create a treatment paradigm to minimize impairment and improve function over time.
3. Discuss the current concepts behind barefoot/minimalist and traditional show wear running and how these trends impact the kinematics of gait and running posture.

Anterior and Posterior Hip Replacement Rehabilitation
1. The importance and benefits of participating in pre-op physical therapy pre total hip surgery.
2. Expectations for post-op physical therapy
3. Normalization of gait mechanics post-op THR

**Lunch Lecture**
"International Orthopaedic Humanitarian Relief: The AAMC and Helping Hands Foundation Experience since 2005"
1. To introduce participants to typical orthopaedic needs in the developing world.
2. To highlight the extensive, coordinated team approach to achieving successful outcomes.
3. To discuss the challenges encountered performing surgery in the developing world.

**Session IV: Sports**
Hip arthroscopy: Treatment of Femoral Acetabular Impingement and Labral Tears SAIL Lab
1. Understand hip arthroscopy.
2. Discuss treatment for femoral acetabular impingement.
3. Discuss repair of labral tears.

Shoulder instability: Clinical Approach to a Difficult Problem
1. Understand how to evaluate instability in the office
2. Develop a comprehensive approach to operative treatment

Anteromedial Portal ACL Reconstruction: Pearls and Pitfalls
1. Learn advantages and disadvantages of this approach
2. Appreciate how position of tunnels can affect stability

New Thoughts in Treatment of Running Injuries
1. Discuss some common running injuries
2. Discuss strategies in running injury recovery and prevention

Breakout Session 2

Session 2A: Orthopedic
Cartilage Restoration Techniques: Indications and Technique
1. Understand Indications for Cartilage Restoration: who is and who isn't a candidate.
2. Understand the various techniques available today and compare their indications and effectiveness.
3. Understand where the future may lie: mesenchymal/stem cells, injectables, bioengineering.

Patellofemoral Instability: What are the surgical indications?
1. What are the factors that contribute to patellofemoral instability?
2. Understand the anatomy and importance of the medial patellofemoral ligament.
3. When are the indications for proximal and distal realignment?

Session 2B: Rehabilitation
The Treatment of Low Back Pain
1. Assessing Posture Deviations and muscle imbalance and its effect on LBP.
2. Treating the Tissues for tightness and rotations along the Lumbar Spine in patients with low back pain.
3. Focusing on the Core Stabilizers of the Lumbar Spine to return to sport or activity.

The Overhead Athlete
1. Education on the shoulder and scapula-thoracic anatomy and the necessary ROM and Strength required for OH movements.
2. Influence of Scapulo-thoracic Mobility and Core Strength on performing a proper OH swing.
3. Injury prevention education and demonstration built around Key Throwers Exercises (KITE)

Session 2C: Rehabilitation
Functional Movement and Power Assessments for Safe Return to Sports and Injury Prevention
1. Identify functional tests which may assist with retuning to sport after ACLR.
2. Recognize 6 factors to help determine return to activity following an ACLR.
3. Recognize tests used to assess power.
4. Identify individuals at risk, who are attempting to maintain or increase activity level.
5. Assist in program design by systematically using corrective exercise to normalize or improve fundamental movement patterns.
6. Provide a systematic tool to monitor progress and movement pattern development in the presence of changing fitness levels.
7. Recognize the importance of posture, proper knee alignment and the partial squat position for jumping techniques for landing strategies.
8. Discuss key factors in ACL injury prevention based on the pathology of non-contact ACL injuries.

**Session 5: Upper Extremity**

"The Expanding Use of Reverse Total Shoulder Arthroplasty: Cadaveric demonstration and discussion"

1. Understand approach and learn technical pearls for shoulder replacement surgery.
2. To discuss the current and expanding indications for use of the reverse total shoulder arthroplasty.
3. To demonstrate the surgical approach for reverse total shoulder arthroplasty with a focus on adequate glenoid exposure.
4. To discuss modifications of the technique for fracture management.

**Double vs Single row Rotator Cuff Repairs: Is there a difference?**

1. Understand the anatomy of the rotator cuff and its importance in shoulder function.
2. Does double row rotator cuff repair provide a clinical difference in arthroscopic rotator cuff repairs?
3. Understand the difference in repair options between U-shaped and crescent shaped tears.

**PIP Fractures/Dislocations—Many Solutions—which one is right?**

1. Understand the clinical entity of PIP fracture dislocations.
2. Understand treatment options for PIP fracture dislocations.
3. Understand the likely outcomes for these complex injuries.