## Musculoskeletal Sonographer (MSKS) Tasks

### General Anatomy and Physiology (43%)

**Abdominal wall**
- Perform general ultrasound of the muscles and fasciae of the abdominal wall

**Ankle and foot**
- Perform general ultrasound of the bones, bursae, fat pads, and joints of the ankle and foot
- Perform general ultrasound of the fasciae, ligaments, muscles, retinaculum and tendons of the ankle and foot

**Elbow**
- Perform general ultrasound of the bones, bursae, fat pad, joints and ligaments of the elbow
- Perform general ultrasound of the muscles and tendons of the elbow
- Perform general ultrasound of the neurovascular system of the elbow

**Hand and wrist**
- Perform general ultrasound of the bones, and joints of the hand and wrist
- Perform general ultrasound of the fasciae, muscles, tendons, retinaculum, pulleys, and ligaments of the hand and wrist
- Perform general ultrasound of the neurovascular system of the hand and wrist

**Hip, groin, and pelvis**
- Perform general ultrasound of the bones, bursae, cartilage, tendons, and joints of the hip, groin and pelvis
- Perform general ultrasound of the muscles of the hip, groin, and pelvis
- Perform general ultrasound of the lymphatic and neurovascular system of the hip, groin, and pelvis
- Perform general ultrasound of the infant hip

**Knee**
- Perform general ultrasound of the bones, bursae, cartilage, and joints of the knee
- Perform general ultrasound of the muscles, tendons, retinaculum, and ligaments of the knee
- Perform general ultrasound of the neurovascular system of the knee

**Shoulder**
- Perform general ultrasound of the bones, bursae, cartilage, joints, and ligaments of the shoulder
- Perform general ultrasound of the muscles and tendons of the shoulder
- Perform general ultrasound of the neurovascular system of the shoulder

**Soft tissue**
- Evaluate soft tissue

### General Sonographic Pathology (24%)

**Abnormal physiology**
- Evaluate tendon pathology, calcifications, and tears
- Evaluate masses
- Evaluate fluid collections, e.g., abscess, hematoma
- Evaluate cystic structures
- Evaluate hernias
- Evaluate soft tissue pathology
- Evaluate muscle pathology and tears
- Evaluate joint effusions
- Evaluate ligament pathology and tears
- Evaluate foreign body
- Evaluate subcutaneous abnormalities
- Evaluate infections
- Evaluate synovitis
| Evaluate synovial proliferation                  |
| Evaluate neuromas                               |
| Evaluate nerve pathology and entrapment          |
| Evaluate for gas within the soft tissue          |
| Evaluate bone pathology and erosion             |
| Evaluate fractures                               |
| Evaluate crystal deposits                        |
| Evaluate joint laxity/altered function           |

**Integration of Data (10%)**

- **Incorporate outside data**
- Correlate findings with clinical presentation
- Correlate information with previous tests
- Perform anatomic assessment during dynamic scanning
- Assess postsurgical anatomy and hardware
- Differentiate pediatric from adult anatomy

**Report results**

- Report impression of the exam

**Serial studies**

- Follow course of disease with serial ultrasound exams
- Evaluate cartilage pathology

**Protocols (15%)**

- **Clinical standards and guidelines**
  - Gather clinical history of the patient
  - Position patient and ultrasound machine
  - Document and confirm procedures
  - Recognize the limitations of the prescribed examination based on the findings
  - Follow ultrasound imaging protocols for musculoskeletal-related studies
  - Verify the appropriateness of the order
  - Set up the equipment and the examination room
  - Assess the physical condition of the patient, focusing on the area to be examined
  - Communicate with the patient
  - Communicate ultrasound findings
  - Generate an initial plan for the examination

- **Measurement techniques**
  - Perform measurements

- **Imaging instruments**
  - Manipulate probe positioning for optimal image acquisition, i.e., anisotropy

**Treatment (8%)**

- **Interventional procedures**
  - Maintain aseptic techniques
  - Assist/support during guidance for interventional procedures

- **Sonographer role in procedure**
  - Recognize ultrasound findings that require immediate action
  - Follow postprocedural protocols, i.e., pain assessment and specimen management
  - Create incident reports when required