**Orange High School**

**Sports Medicine 3 Independent Study**

**Contact Information:**

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**Purpose of this course:**

The Sports Medicine 3 curriculum at Orange High School is designed to give the sports medicine student a detailed examination of post-injury management techniques used by athletic trainers and physicians in management of orthopedic injuries. This curriculum will focus on surgical techniques and their implications on rehabilitation/activity and captures the totality of injury management including: pathology, immediate management, diagnostic imaging, definitive and differential diagnosis, medical management, medications, surgical intervention, post-injury and/or post-surgical management, and rehabilitation. The objective of Sports Medicine 3 is to apply skills learned from the Sports Medicine 1 & 2 class, while working independently developing Sports Medicine instructional materials and research projects. Students will attend class with the Sports Medicine 2 students while completing independent learning projects.

Students will be asked to assist in teaching various units and supervise Sports Medicine II lab activities.

**Course objectives:**

At the end of this course, the student will be able to:

1. Describe pathologies of orthopedic injuries
2. Describe the pathomechanics and functional limitations of orthopedic injuries
3. Understand the common imaging techniques used to diagnose orthopedic injuries
4. Discuss the post-injury and post-surgical management of orthopedic injuries
5. Understand commonly prescribed medications
6. Describe surgical techniques and understand their implications for rehabilitation of orthopedic injuries
7. Discuss progressive treatment and rehabilitation guidelines of orthopedic injuries
8. Discuss return to play guidelines for orthopedic injuries
9. Understand best practice in athletic training and its implications on orthopedic injuries

**Grading Policy:**

Independent

Semester Grade

Research Projects: 80%

Participation: 20%

Semester 1: 40%

Final Grade

Semester 2: 40%

Final Exam/Projet:20%

Assignments should be completed and submitted at the beginning of class on the day it is due. Late assignments will lose 10 points off the grade for each unit that it is late. In the case of an excused absence, you will have the number of days equal to the number you missed to turn in that work. If you miss a quiz or test, you will be required to make that up outside of class time. See me for possible make-up days before or after school.

# Classroom Rules

* Respect others opinions in the classroom.
* Come to class prepared.
* Keep an open mind.

# Be accountable for your actions.

# Course Required Activities/Expectations

* You are expected to participate in class each day. This includes class discussion, activities, labs in the training room, and group projects.
* You are to come to class prepared.
* Make up work will be the responsibility of the student. You will be expected to contact me for make-up work.
* You are encouraged to volunteer each semester in the athletic training room, sport practices, and/or sport games under the supervision of the Athletic Trainer.
* You will have “Lab” days periodically. I will tell you prior to that day. You must wear appropriate clothing that day as there will be occasions that you are required to kneel on the floor, lie on the tables, etc

# Common Core and Essential Standards:

*This course expands on the state standards for Healthful Living and infuses clinical application of medical skills and health literacy.*

**Specific Topics that Students may Research**

* **Toe Injuries**: First Metatarsophalangeal Joint Sprain, Hallux Valgus, Hallux Rigidus
* **Foot Injuries**: Plantar Fasciitis, Interdigital Neuroma (Morton’s Neuroma), Fifth Metatarsal Fractures, Navicular Stress Fractures
* **Ankle Injuries**: Lateral Ankle Sprains, Syndesmosis Ankle Sprains (High Ankle Sprains), Medial Ankle Sprains, Ankle Fractures and Dislocations, Achilles Tendinopathy, Achilles Tendon Rupture, Peroneal Tendon Subluxations and Dislocations,
* **Leg Injuries**: Acute Compartment Syndrome, Exercise-Related Lower Leg Pain, Fibula Fractures, Tibia Fractures
* **Knee Injuries**: Anterior Cruciate Ligament Sprain, Risk Factors for ACL Injury, Medial Collateral Ligament Sprain, Posterolateral Complex Injuries, Posterior Cruciate Ligament Sprain, Meniscal Tears, Distal Femur and Proximal Tibia Fractures, Tibiofemoral Dislocation, Iliotibial Band Friction Syndrome, Popliteal Tendinopathy, Osteochondral Defect
* **Patellofemoral Injuries**: Patellofemoral Pain Syndrome, Patellar Subluxation and Dislocation, Quadriceps and Patellar Tendinopathy, Patellar Tendon Rupture, Patellar Fracture
* **Femur, Hip, and Pelvis Injuries**: Strains, Quadriceps Femoris Heterotopic Ossification, Proximal Iliotibial Band Syndrome, Acetabular Labral Tears, Iliac Crest Contusions, Hip Dislocation, Pelvic Fracture, Femoral Fracture, Piriformis Syndrome, Sacroiliac Joint Dysfunction
* **Rehabilitation, Taping, and Conservative Management**: Patellar Mobilization, Patellar Tendon Cross-Friction Massage, Iliotibial Band Trigger-Point Massage, Patellar Taping, Range of Motion, Isokinetics, Flexibility Exercises, Strengthening Exercises, Orthotic Corrections, Footwear, Proprioception and Functional Exercises, Plyometric Exercises, Functional Agility Exercises, Endurance, Running Progression, Sport-Specific Activities, Joint Mobilization Techniques, Self-Mobilization Techniques, Soft-Tissue Mobilization, Range-of-Motion Exercises, Wrist and Hand Rehabilitation, Finger Rehabilitation, Thumb Rehabilitation, Proprioceptive Neuromuscular Facilitation Exercises, Mobility Exercises, Developing Shoulder Stability, Foundational Shoulder Exercises
* **Shoulder Injuries**: Clavicular Fractures, Acromioclavicular Joint Sprains, Rotator Cuff Pathologies, Internal Impingement, Rotator Cuff Tears, Long Head of the Biceps Brachii Tendinopathy, Superior Labrum Anterior and Posterior (SLAP) Lesions, Acute Traumatic Glenohumeral Dislocation, Recurrent Glenohumeral Instability, Humeral Fractures, Overhead Athletes: Adaptations and Pathomechanics
* **Elbow Injuries**: Distal Biceps Tendon Rupture, Ulnar Collateral Ligament Sprain, Valgus Extension Overload, Elbow Fractures, Elbow Dislocations, Osteochondritis Dissecans, Synovitis, Lateral Elbow Tendinopathy, Medial Elbow Tendinopathy
* **Finger Injuries**: Finger Sprains and Dislocations, Extensor Tendon Avulsion Fracture, Flexor Digitorum Profundus Tendon Avulsion, Finger Fractures, Trigger Finger, Swan-Neck Deformity
* **Thumb Injuries**: Thumb Ulnar Collateral Ligament Sprain, Bennett’s Fracture, de Quervain Tenosynovitis
* **Hand and Wrist Pathologies**: Metacarpophalangeal Joint Dislocation, Metacarpal Fractures, Lunate Dislocations, Scaphoid Fractures, Hamate Fractures, Triangular Fibrocartilage Complex Injuries, Colles’ Fractures, Carpal Tunnel Syndrome, Ulnar Nerve Injuries in the Hand