

**EXRS 3110:**  
**UPPER EXTREMITY INJURY EVALUATION IN ATHLETIC TRAINING**

**COURSE INFORMATION**

Course Instructor: Mike Ferrara      542-4801(o)      [mferrara@uga.edu](mailto:mferrara@uga.edu)  
Office hours: by appointment  
Meeting Time: Monday and Wednesday      9:05-9:55am

**LABORATORY INFORMATION**

Lab Instructor: Mike Dew      542-6521(o)      [mjdew@yahoo.com](mailto:mjdew@yahoo.com)  
Teaching Assistant: Kaitlin Keeler and Alexis Murphy  
  
Meeting Time: Tuesday      8:00-9:15am      Room 210 Ramsey

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Catalog Description: The procedures and techniques for the recognition and evaluation of athletic injuries that occur to the upper extremities. Laboratory experiences will emphasize the proper methods and techniques in evaluating upper extremity pathologies.

Course Objectives: This course is designed to teach you advanced injury evaluation techniques of the upper extremity. The student will also be able to classify the type and severity of injuries. Factors that lead to an injury episode such as anatomical and biomechanical considerations will be discussed.

**Specific Objectives - Cognitive**

Describe commonly accepted techniques and procedures for evaluation of the common injuries and illnesses that are incurred by athletes and others involved in physical activity. These techniques and procedures include the following: a) taking a history, b) inspection or observation, c) palpation, d) functional testing (ROM, ligaments or capsular stress testing, MMT, neurological evaluation to include sensory, motor and reflex testing).

1. Explain how to take measurements and the evaluation of neurological function of cranial and spinal nerves and brachial plexus to include the measurement of and grading of myotomes, dermatomes and reflexes.
2. Describe active, passive and resistive ROM testing and differentiates the significance of the finding of each test.
3. Explain the role of special tests and postural examination in injury assessment.
4. Explain how to measure muscular function using manual muscle testing and break tests.
5. Describe the etiological factors, signs, symptoms and management procedures for injuries of the head, face, thorax, spine, shoulders, upper arm, elbow, forearm, wrist, hands, and fingers.
6. Explain how to identify and evaluate various postural deformities.
7. Describe the signs and symptoms of injuries to the abdominal viscera.

### Specific Objectives - Psychomotor

8. Construct and phrases appropriate questions to obtain a medical history of an injured or ill individual that includes previous history and history of the present injury or illness.
9. Visually identify clinical signs associated with common injuries and illnesses.  
Palpate bony and soft tissue structures to determine normal or pathological tissues.
10. Demonstrate active, passive and resistive ROM tests for the upper extremity and neck.
11. Measure active and passive ROM with a goniometer.
12. Perform appropriate MMT and/or break tests for the neck and upper extremity.
13. Apply appropriate stress tests for ligament instability of the upper extremity.
14. Apply appropriate and commonly used special tests to evaluate athletic injuries.
15. Assess neurological function of cranial, spinal nerves and the brachial plexus to assess the level of spinal cord involvement following injury, including the function of dermatomes, myotomes and deep tendon reflexes.

### Specific Objectives - Clinical

Demonstrate the appropriate recognition of the signs and symptoms and to perform a clinical evaluation for the following injuries, illnesses and/or conditions:

#### Shoulder/Upper Arm

Dislocation/subluxation of the glenohumeral joint, Sprains of the SC, AC and glenohumeral joints, Brachial plexus nerve injury, Bursitis (subdeltoid, subacromial), Rotator cuff strain, Rupture of the long head of the biceps, tenosynovitis of the long head of the biceps, Fractures (clavicle, scapula, humerus), Epiphyseal plate injuries, Thoracic outlet syndrome, Sprengel's deformity, Winging scapula

#### Elbow

Bursitis (Olecranon etc.), Dislocation/subluxation of the elbow, Epicondylitis, Epiphyseal plate injuries, Fractures, Nerve injuries (radial, ulnar, median), Supracondylar fractures, Ulnar nerve contusion, Sprains, Osteocondritis dissecans, tenosynovitis and tendinitis

#### Forearm, Wrist and Hand

Fractures (Bartons, Bennett, Boxer's, Colles, Navicular, radius, ulnar, metacarpal, phalanges, Smith's etc), Carpal tunnel syndrome, Boutonniere deformity, ganglion, Sprains (wrist, IP, etc.), Dislocation of wrist, lunate, IP etc.), Epiphyseal plate injuries, Felon, Paronychia, Profundus tendon rupture, Volkmann's ischemic contractures, Disease states (clubbed nails, spoon shaped nails etc.)

#### Head/Face

Concussion, Intracranial hematoma (epidural, subdural intra cerebral), Skull Fracture, Post concussion syndrome, Orbital blowout fracture, Cauliflower ear, Corneal abrasion and laceration and retinal injuries, dental injuries, Fractures (nose, maxilla, mandible etc.), Otitis externa and media, Styne and hyphema, temporomandibular joint injuries

## Neck and Spinal Column

Dislocation/subluxation, Brachial plexus stretch injuries, Vertebral fractures, Nerve root compression and spinal stenosis, Spinal cord injuries (concussion), Spondylitis, spondylolysis, spondylolisthesis, Sprains (intervertebral) and Strains, Postural deviations (kyphosis, lordosis, scoliosis), Intervertebral disc herniation

## Thorax/Abdomen/Urogenital

Contusion (ribs, sternum, etc.), Costochondral Injuries (sprain, strain, fracture), Fractures (ribs, sternum), Hernia, Internal Organ injuries (kidney, liver, spleen), Pneumothorax, Testicle contusion, Ulcer, Hemorrhoids, Celiac Plexus Syndrome,

## Required Text

1. Starkey C., and Ryan, J. (1996) Evaluation of Orthopedic and Athletic Injuries 2<sup>nd</sup> Edition. Philadelphia: FA Davis.
2. Hoppenfeld, S. (1976) Physical Examination of the Spine and Extremities. Norwalk, CN: Appleton-Century- Crofts.
3. Konin, J. (1997) Special Tests for Orthopedic Examination 2<sup>nd</sup> Edition. Thorofare, NJ: Slack, Inc.

## Supplemental Texts

1. Prentice, W. (2002) Arnheim's Principles of Athletic Training. 12<sup>th</sup> Edition, Mosby.
2. Kendall, F., McCreary, E., Provance, P. (1993) Muscles Testing and Function, 4<sup>th</sup> Edition. Baltimore, MD. Williams and Wilkins.
3. Stone, R., Stone, J. (2003). Atlas of Skeletal Muscles 4<sup>th</sup> Edition. Boston, Massachusetts, McGraw Hill.

## Course Attendance and Dress Policy

Students are expected to attend each classroom and laboratory meeting. Three class meetings and one laboratory session may be missed without affecting your final grade. For each additional absence, you will be deducted 30 points from your final point total. Travel with teams will not count as an absence unless you fail to notify the instructors prior to team travel.

Class will begin promptly at 9:05! Tardiness will not be tolerated. A closed classroom door indicates that instruction time has begun. It will be the policy of the instructor to allow no one to enter the classroom when the door has been closed. Lateness will be treated as an absence.

Failure to dress appropriately for laboratory will result in an automatic 50 point deduction from your final point total. There will be no warnings or excuses accepted.

## Policy for Make-Up Examination and Quizzes

Unexcused missed tests and quizzes will not be made up unless prior permission is obtained from me. Supporting medical documentation will be required before any make-up is granted.

## Academic Honesty

The University of Georgia and the Athletic Training Education program seeks to promote and ensure academic honesty and personal integrity among students and members of the University community. All academic work must meet the standards contained in “A Culture of Honesty.” Students are responsible for informing themselves about those standards before performing any academic work. Academic honesty means performing all academic work without cheating, lying, tampering, stealing or receiving assistance from any other person or using any source of information that is not common knowledge. You should read and become familiar with A Culture of Honesty publication which defines the policies, procedures and sanctions for academic honesty.

The link to more detailed information about academic honesty can be found at:  
<http://www.uga.edu/ovpi/honesty/acadhon.htm> These procedures will be strictly enforced by your instructor(s).

## GENERAL COURSE OUTLINE

<u>DATE</u>	<u>TOPIC</u>
1/9	Syllabus and Shoulder Anatomy I
1/11	Shoulder Anatomy I
1/16	MLK Day - NO CLASS
1/18	Shoulder Anatomy II
1/23	Shoulder Injuries, Conditions, and Evaluation I
1/25	Shoulder Injuries, Conditions, and Evaluation II
1/30	Shoulder Injuries, Conditions, and Evaluation III
2/1	Brachial Plexus Anatomy and Evaluation
2/6	Test Review
2/8	TEST # 1
2/13	Elbow Anatomy I
2/15	Elbow Anatomy II and Elbow Injuries, Conditions, and Evaluation I
2/20	Elbow Injuries, Conditions, and Evaluation II
2/22	Hand and Wrist Anatomy I
2/27	Hand and Wrist Anatomy II
3/1	Hand and Wrist Injuries, Conditions, and Evaluation I
3/6	Test Review
3/8	TEST #2
3/13 & 15	SPRING BREAK - NO CLASS
3/20	Head, Neck, & Face Anatomy
3/22	Head, Neck and Face Injuries, Conditions, &Evaluation I
3/27	Head, Neck and Face Injuries, Conditions, &Evaluation II
3/29	Concussion Evaluation
4/3	Concussion Evaluation
4/5	TEST #3
4/10	Thoracic Cavity Anatomy
4/12	Thoracic Cavity/Internal Injuries and Evaluation
4/17	Spine Anatomy
4/19	Thoracic Spine/Back Injuries and Evaluation
4/24	Lumbar Spine/Back Injuries and Evaluation
4/26	Final Exam Review
5/1	Final Exam Review/Evaluations
5/3	FINAL EXAM (8:00 - 11:00am)

### Quizzes/Evaluation Scenario

There will be announced quizzes/evaluation scenarios given during the semester, each worth a variable amount of points (no less than 5 no greater than 15) The total amount of points allotted for quizzes will be 50 points. All quizzes will cover material that has been previously presented in class or laboratory.

## Tests

There will be 3 unit tests and a final comprehensive exam to be given on Wednesday May 3<sup>rd</sup> @ 8:00am. All tests will cover readings, lectures, and laboratory information. Test material will be gathered from notes, slide presentations, text, assignments, and lectures. Exact test dates will be announced in class. If you have any special needs for taking the test, please notify the instructor in advance.

## GRADING

Final Grades will be based on examinations, quizzes, assignments and oral/practical examinations. Grades will be based on points earned.

Examination 1	100 points
Examination 2	100 points
Examination 3	100 points
Final Examination	150 points
Shoulder O/P	25 points
Elbow O/P	25 points
Hand, wrist, and finger O/P	25 points
Concussion, head, and c-spine O/P	25 points
Thoracic and lumbar O/P	25 points
Final O/P	50 points
<u>Quizzes</u>	<u>50 points</u>
<b>TOTAL POINTS POSSIBLE</b>	<b>675 points</b>

## FINAL GRADE

A	607 points or better
B	540-606 points
C	473-539 points
D	405-472 points
F	Less than 405 points

**FINAL EXAMINATION IS Wednesday May 3<sup>rd</sup> @ 8:00am AND IS COMPREHENSIVE!**

The contents of this syllabus are tentative and may be changed during the progression of this semester. You will be given a written copy of any said changes prior to their implementation.