

Midwestern State University  
College of Health Sciences & Human Services  
Department of Kinesiology  
Athletic Training Education Program

**ATRN-3803:** Evaluation of Athletic Injuries I  
T,TH 8-9:20  
Room: D.L. Ligon 219

**Term:** Fall 2008

**Faculty:** Kate Lyman, MS, ATC, NREMT  
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Office Hours: 8-11 M,W 12:30-2:00 T, TH 10:30-11:30 F

**Course**

**Description:** Integration of understanding of the mechanism of injury into assessment techniques used to distinguish injuries common to the physically active individual with a specific focus on the lower extremity, lumbar, and sacral spine. (Prerequisites: ATRN 1073. Co-requisite: ATRN 3801)

**Student**

**Outcomes:**

1. To provide athletic training students with the knowledge and skills of lower extremity and lumbar spine clinical examination and diagnosis techniques necessary for effective performance as an entry-level certified athletic trainer (ATC®). Specific clinical competencies are contained in the Athletic Training Education Competencies (4<sup>th</sup> ed) and are posted at the end of the syllabus.
2. To provide understanding of the underlying principles and techniques of effective lower extremity and lumbar spine evaluation and assessment techniques.
3. To facilitate critical thinking that involves application of scientific knowledge and problem solving to lower extremity and lumbar spine evaluation and assessment procedures.
4. Utilize standard documentation procedures, terminology, and communication in the systemic evaluation and diagnosis of lower extremity and lumbar spine injuries.
5. To facilitate the implementation of peer-reviewed research and case studies in the development of lower extremity and lumbar spine evaluation and assessment techniques.

**Required**

**Texts:** Starkey, C & Ryan, J. (2002). *Evaluation of Orthopedic and Athletic Injuries, Second Edition*. Philadelphia: F.A. Davis.

Konin, J, Wiksten, D, Isear, J & Brader, H. (2006). *Special Tests for Orthopedic Examination – 3<sup>rd</sup> Edition*. Thorofare, NJ: Slack Inc.

**Recommended**

**Texts:**

Hoppenfeld, S. (1976). *Physical Examination of the Spine & Extremities*. East Norwalk, CT: Appleton-Century-Crofts.

Magee, DJ. (2006). *Orthopedic Physical Assessment, Fourth*. St. Louis, MO: Saunders Elsevier.

**WEBCT:**

This course is supplemented with WEBCT and requires internet access to complete some assignments and access course materials online.

**Timeline:** The following is a tentative schedule of class topics, exams, and assignments. Every attempt will be made to follow the schedule. However, some alterations may be made due to circumstances beyond control. If a change is going to be made, the students will be made aware through e-mail and/or announcement. *The syllabus is subject to change at instructor's discretion.*

<b>Date</b>	<b>Topic</b>	<b>Assignment</b>
8/26	Introduction, Class Activity	CH 1
8/28	Documentation	
9/2	Documentation	CH 2
9/4	Nomenclature	CH 3 & 9
9/9	Posture/Gait	<b>Quiz: Documentation/Nomenclature</b>
9/11	Posture/Gait	CH 4
9/16	Foot & Toes: Anatomy & History	
9/18	Foot & Toes: Observation & Pathologies	
9/23	Foot & Toes: Special Tests & ROM	<b>Quiz: Foot &amp; Toes</b>
9/25	<b>Exam: Documentation, Nomenclature, Posture, Foot &amp; Toes</b>	
9/30	Ankle & Lower Leg: Anatomy & History	CH 5
10/2	Ankle & Lower Leg: Observation & Pathologies	
10/7	Ankle & Lower Leg: Special Tests & ROM	
10/9	<b>Exam: Ankle &amp; Lower Leg</b>	
10/14	Patellofemoral Articulation	CH 6, 7
10/16	Patellofemoral Articulation	
10/21	Knee: Anatomy & History	
10/23	Knee: Observation & Pathologies	<b>Quiz: Patella/Anatomy &amp; Hx</b>
10/28	Knee: Special Tests & ROM	
10/30	Review Day	
11/4	<b>Exam: Patellofemoral &amp; Knee/Review Foot &amp; Toes, Ankle &amp; Leg</b>	
11/6	Hip, Thigh, Pelvis: Anatomy & History & Observation	CH 8
11/11	Hip, Thigh, Pelvis: Pathologies & Special Tests & ROM	
11/13	<b>Exam: Hip, Thigh, Pelvis</b>	
11/18	Lumbar Spine	CH 9
11/20	Lumbar Spine	
11/25	Lumbar Spine	<b>Quiz: Lumbar Spine</b>
12/2	Course Review	CH 1-9
12/4	Course Review	CH 1-9
12/6-12/12	<b>Comprehensive Exam</b>	

### **Assignments:**

**Evidence Based Practice:** It is the goal of the National Athletic Trainer's Association (NATA) to have all athletic trainers practicing evidenced based assessment and treatment. In order to stay current with practicing standards, you will need to write a 2-3 page paper on major topics (Foot & Toes, Ankle & Lower Leg, Knee, Hip, & Lumbar Spine) throughout the semester. These papers must be a summary of an article from a scholarly journal to be approved by the instructor. Each paper will include a summary of the History, Methodology, Results, Authors' Conclusions, Student Conclusions, and Appropriate Usage. Your name, course number, date, and professor name must be listed at the top of the paper. This section CANNOT be double-spaced. However, the rest of the paper must be double-spaced. You must also provide a hard copy of the article you chose to be turned-in with the paper. No late submissions will be accepted of either the paper or the article. The first 2 papers can be turned in multiple times for full credit. Therefore, if you do not receive 30 points on the first submission, you can make necessary corrections for full credit. The paper must have been turned in on-time initially. You MUST turn in all copies if attempting to receive more credit.

**Foot & Toes: 9/23/2008**

**Ankle & Lower Leg: 10/7/2008**

**Knee: 10/28/2008**

**Hip, Thigh, Pelvis: 11/11/2008**

**Lumbar Spine: 11/26/2008**

All submissions are due by 1:30 PM on the above listed due date. Each paper is worth **30 points**

SOAP Notes: It is the goal of this assignment to provide you with the opportunity to practice proper documentation. SOAP note writing takes years of practice, and you need to start immediately. Since each of you is assigned to both a sport and off-campus site, watching an ACI/CI conduct an evaluation or you, yourself conducting an evaluation should happen often. Your first SOAP note must be completed by 9/9/2008. Have your ACI/CI conduct the evaluation while you observe. At the end of the evaluation, ask your ACI/CI the particular findings of the evaluation. Put all of the information in SOAP note form. 2 other SOAP notes are due throughout the semester. I would prefer that they be SOAP notes from your evaluation skills, but they do not need to be. Again, please be sure to have all documented information. Each SOAP note must include your name, course number, date of evaluation and submission, professor name, and athlete name at the top. Each SOAP note is worth **20 points**.

Assignments: I will provide topic-based assignments as the need arises. Because it is a 2 day per week class, we must cover several topics in one day. In order to reinforce certain topics, I will utilize multiple learning strategies to help your learning process. Assignments will be announced in class with plenty of advanced warning. The maximum amount of homework points allotted is **40 points**.

Quizzes: Each quiz is listed on the syllabus. However, I reserve the right to add or subtract a quiz as the need arises. Each quiz is worth **15 points**.

Exams: Each exam is listed on the syllabus. Each exam is worth **75 points**.

Comprehensive Exam: The comprehensive exam will take place during the allotted time that Midwestern State University has approved. The comprehensive exam is worth **150 points**.

Distinguished Lecture Series: Attendance at all lectures of the Allied Health Dignified Lecture Series is mandatory. Students who have conflicts with class schedules or clinical/field experience rotations may be excused from the presentation but must watch a recorded video of the presentation within the following week. Students will submit a written summary of each lecture. Students are expected to dress professionally. Each DLS is worth **20 points**.

**Late Submission Policy:** Assignments are DUE on the posted or announced date *at the beginning of class*. If an assignment is turned in late (this includes the end of class), points will be deducted from the assignment. If an assignment is not completed prior to the next class date you will receive a zero grade for that assignment.

Missed exams and assignments can only be made up if the absence was excused. All must be completed within one week of the original due date.

**Course Evaluation:**

Attendance & Participation: EXPECTED

Evidence Based Practice: 5 papers x 30 points= 150 points

SOAP Notes: 3 papers x 20 points= 60 points

Assignments: = 40 points

Quizzes: 4 quizzes x 15 points= 60 points

Exams: 4 exams x 75 points= 300 points

Comprehensive Exam: 1 exam x 150 point= 150 points

DLS: 2 DLS x 20 points= 40 points

**Total: 800 points**

**Grading Scale:**

A %	90-100
B %	80 – 89
C %	70 – 79
D %	60 – 69
F %	50 – 59

**AMERICANS WITH DISABILITIES ACT**

Midwestern State University does not discriminate on the basis of an individual's disability and complies with Section 504 of the Americans with Disabilities Act (ADA) in its admission, accessibility, and employment of individuals in programs and activities. It is the policy of Midwestern State University that no otherwise qualified person with a disability be excluded from the participation in, be denied the benefits of, or be subject to discrimination in any educational program or activity at the University. MSU provides academic accommodations and auxiliary aids to individuals with disabilities as defined by law, who are otherwise qualified to meet academic employment and requirements. The Director of Counseling and Disability Services Office serves as coordinator of accommodations for students with disabilities and should be contacted concerning initial enrollment, scheduling, and other arrangements. The Counseling and Disability Services Office may be contacted at (940) 397-4618 or in the Clark Student Center, Room 108. It is the student's responsibility to declare any disabilities. After declaration, preferably at the beginning of each semester, the student needs to contact individual instructors to determine any reasonable accommodations that may be required.

***Special Note: Please inform me if you have a disability and need accommodations for this for this class.***

**Course Policies:**

Class Preparation—Students should come to class prepared. This includes wearing the appropriate clothing.

Students should refer to the current MSU Student Handbook and Activities Calendar for university policies related to class attendance, academic dishonesty, student responsibilities, rights and activities.

*“Midwestern State University is an equal opportunity/affirmative action institution and complies with all federal and Texas laws, regulations, and executive orders regarding affirmative action Requirements in all programs and policies. Midwestern State University does not discriminate against any individual because of race, creed, color, sex, national origin, or disability”*

Academic integrity is expected of all students. Cheating in any form (including plagiarism) will not be tolerated and may result in disciplinary action. Remember the MSU Student Creed,

***“As an MSU student, I pledge not to lie, cheat, steal, or help anyone else to do so”***

Plagiarism: By enrolling in this course, the student expressively grants MSU a “limited right” in all intellectual property created by the student for the purpose of this course. The “limited right” shall include but shall not be limited to the right to reproduce the student's work product in order to verify originality and authenticity, and educational purposes.

**Athletic Training Educational Competencies (4<sup>th</sup> ed)**  
**National Athletic Trainers' Association - 2006****Orthopedic Clinical Examination and Diagnosis**

In order to demonstrate knowledge of the practice of athletic training, to think critically about the practices involved in athletic training, including the ability to integrate knowledge, skill and behavior, and to assume professional responsibility, the entry-level certified athletic trainer must possess the ability to clinically examine and diagnose a patient for the purpose of identifying (a) common acquired or congenital risk factors that would

predispose the patient to injury and (b) musculoskeletal orthopedic injuries to determine proper care including the referral of the patient to other health care providers when appropriate.

The cognitive and psychomotor competencies and clinical proficiency should encompass the following body areas:

- a. Foot and toes
- b. Ankle
- c. Lower leg
- d. Knee (tibiofemoral and patellofemoral)
- e. Thigh
- f. Hip/pelvis/sacroiliac joint
- g. The lumbar spine

#### Cognitive Competencies

1. Describe common techniques and procedures for evaluating common injuries including taking a history, inspection/observation, palpation, functional testing, special evaluation techniques, and neurological and circulatory tests.
2. Explain the relationship of injury assessment to the systematic observation of the person as a whole.
3. Explain the roles of special tests in injury assessment.
4. Explain the role of postural examination in injury assessment including gait analysis.
5. Describe strength assessment using resistive range of motion, break tests, and manual muscle testing.
6. Describe the use of diagnostic tests and imaging techniques based on their applicability in the assessment of an injury when prescribed by a physician.
7. Describe and identify postural deformities.
8. Describe the components of medical documentation (e.g. SOAP, HIPS and HOPS).

#### Psychomotor Competencies

1. Describe common techniques and procedures for evaluating common injuries including taking a history, inspection/observation, palpation, functional testing, special evaluation techniques, and neurological and circulatory tests.
2. Obtain a medical history of the patient that includes a previous history and a history of the present injury.
3. Perform inspection/observation of the clinical signs associated with common injuries including deformity, posturing and guarding, edema/swelling, hemarthrosis, and discoloration.
4. Perform inspection/observation of postural, structural, and biomechanical abnormalities.
5. Palpate the bones and soft tissues to determine normal or pathological characteristics.
6. Grade the resisted joint range of motion/manual muscle testing and break tests.
7. Apply appropriate stress tests for ligamentous or capsular stability, soft tissue and muscle, and fractures.

8. Apply appropriate special tests for injuries to the specific areas of the body as listed above.
9. Assess neurological status, including cranial nerve function, myotomes, dermatomes and reflexes, and circulatory status.
10. Document the results of the assessment including the diagnosis.

## **ACUTE CARE OF INJURIES AND ILLNESSES**

### Cognitive Competencies

1. Know and be able to use appropriately standard nomenclature of injuries and illnesses.
2. Identify the signs and symptoms of trauma to the cervical, thoracic and lumbar spines, the spinal cord, and spinal nerve roots, including neurological signs, referred symptoms, and other symptoms that indicate underlying trauma and pathology.
3. Describe home care and self-treatment plans of acute injuries and illnesses.

## **HEALTH CARE ADMINISTRATION**

### Cognitive Competencies

1. Use appropriate terminology and medical documentation to record injuries and illnesses (e.g., history and examination findings, progress notes, and others).

## **PROFESSIONAL DEVELOPMENT AND RESPONSIBILITY**

### Cognitive Competencies

1. Interpret the current research in athletic training and other related medical and health areas and apply the results to the daily practice of athletic training.