Appendix E– Course Syllabi
AT 695
Evaluation & Rehabilitation of Athletic Injuries
Lower Extremity

Know the anatomy, understand the mechanics, and don’t let your intervention contribute to the problem”

Tim Uhl PhD ATC PT
Division of Athletic Training
University of Kentucky
Syllabus for Evaluation & Rehabilitation of Athletic Injuries: Lower Extremity

COURSE DESCRIPTION

This is an advanced athletic training course encompassing a regional study of orthopedic evaluation, assessment, management, and rehabilitation of the spine and lower extremity peripheral joints. A combination of discussion, lecture, and critical review of literature, laboratory, and student presentations will be employed. Laboratory experiences will focus on performance of evaluations of regional areas and specific manual techniques of rehabilitation. The course goals and objectives are to improve the student’s assessment skills and problem solving abilities, and to deepen the student’s knowledge of rehabilitation techniques for common athletic injuries by incorporating therapeutic exercise and specific therapeutic exercise equipment, manual therapy techniques, and modalities.

COURSE GOALS & OBJECTIVES

**Explain:**
1. The role of the athletic trainer in performing a biomechanical assessment of lower extremity musculoskeletal disorders.
2. The concepts of valid clinical test in assessing musculoskeletal disorder and planning appropriate intervention.
3. The thought process necessary to determine the correct clinical assessment
4. Factors that predispose an athlete to potential injuries.

**Describe:**
5. The physiology of musculoskeletal injury and healing.
6. The etiology and clinical profile of common pathologies encountered within the spine and lower extremity
7. The rationale and available evidence for use of various rehabilitation approaches for these common pathologies.

**Demonstrate:**
8. Ability to perform systematic clarifying examinations for all lower extremity peripheral joints and the lumbar spine.
9. Proficiency in performing common special tests unique to each peripheral joint area and each spine area in an orthopedic evaluation.
10. Ability to properly document an Athletic Training evaluation and plan of treatment in SOAP note format.
11. Proficiency in creating, writing, and defending an intervention plan for common musculoskeletal injuries associated with sport participation.
12. Ability to critically review sports and orthopedic literature.
13. Ability to apply the relevant literature in developing a rehabilitation program that is evidence based.
14. Ability to create an oral and written case presentation to colleagues, including facilitation of a discussion among colleagues.

**Instructional Strategies**
The class will meet for 5 hours per week throughout each semester. The class will meet on
Monday at 8:00 – 10:00 in the room 220 College of Health Sciences and Wednesday 8:00 – 11:00 in the Shively Training facility or a predetermined assigned location such as research laboratories. This class will be taught primarily as didactic and laboratory presentations. Students will be given reading and written assignments to complete for class discussion and present for the instructor to review.

**Assigned Readings:**
Available in coursebook or via Blackboard web page.

**Required Texts:**


**ADDITIONAL REFERENCES:**

- *Athletic Injuries and Rehabilitation (AIR)*, Zachazewski JE, Magee DJ, Quillen WS, W.B. Saunders, 1996

**Laboratory Dress** (dictated by anatomical region being studied)

Generally, laboratory attire should allow for visual inspection of the area being studied, allow freedom of movement, and be modest in design. Generally, females should wear a halter-top or sports bra when examining the upper extremity. For men shorts and a T-shirt are appropriate.

**Academic Honesty**
Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating and plagiarism violate the rules of the University and the ethical standards of members in the allied health profession. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the University. Students may view the Student Rights & Responsibilities Document at http://www.uky.edu/StudentAffairs/Code/part1.html.

Withdrawals and Incompletes
The last day to withdraw from the course is at the end of the fifth week for fall or spring semester. No withdrawals will be signed after that date.

It is the student's responsibility to properly process withdrawals. Students who fail to process withdrawals or who process them after the time that grade report sheets are printed, will receive a grade of F on the official grade sheet. To correctly process a withdrawal the student must obtain the signature of Dr. Mattacola, obtain the signature of the student's advisor, and take the withdrawal form to the Registrar's office.

Incomplete (I) grades will be given only in extenuating circumstances and never as a replacement for a failing or substandard grade. Any student requesting an incomplete grade must see the course coordinator, Dr. Uhl, for approval and for additional rules governing incomplete grades.

Administrative

Students are to be aware of and meet the technical standards and behavioral standards as outlined in Technical Standards and the Behavioral Standards in Patient Care of the College of Allied Health Profession.

Feedback
Students are encouraged to come to the instructor's office to discuss progress in the class. This will be the only means for review of evaluation instruments. Tests and/or papers will be retained by the course coordinator until approximately three weeks into the succeeding semester or summer session (Feb. 15, June 1, Aug. 1, and Sept. 15).

Office Hours: Tuesday 7:00am to 12:00pm or Saturdays 9:00am – 12:00pm by appointment via email

<table>
<thead>
<tr>
<th>Course Director:</th>
<th>Tim Uhl PhD ATC PT</th>
<th>Assistant Instructor</th>
<th>A.D. Harrison PT</th>
<th>Assistant Instructor</th>
<th>Matt Seeley MS ATC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office:</td>
<td>210c Wethington</td>
<td>Sports Medicine</td>
<td>Biodynamics</td>
<td>Laboratory</td>
<td>Wenner-Gren</td>
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<td>Health Sciences Bldg</td>
<td>Biodynamics Center</td>
<td>Cincinnati Children's Hospital Medical Center</td>
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<td>900 S. Limestone</td>
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<tr>
<td>E-mail:</td>
<td><a href="mailto:tuhl2@uky.edu">tuhl2@uky.edu</a></td>
<td><a href="mailto:adrick.harrison@cchmc.org">adrick.harrison@cchmc.org</a></td>
<td><a href="mailto:mkseel2@uky.edu">mkseel2@uky.edu</a></td>
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<tr>
<td>Telephone:</td>
<td>(859) 323-1100 Ext.</td>
<td>(513) 636-9622</td>
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<td>(859) 257-4664</td>
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<tr>
<td>Cell Phone:</td>
<td>(859) 230-7841</td>
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</table>
Attendance Policy
The instructor expects everyone to attend every class and be on time. If absence is due to external clinical responsibilities it is the student responsibility to notify the professor of the absence or potential absence at the beginning of the semester. Additionally, the student is responsible to obtain information presented during his or her absences and submit prior to absence any assignment due. Intermittent attendance records of student attendance will be kept. Attendance and punctuality will also be considered subjectively in borderline performance which can account for up to 5% of your final grade.

University Closing
Students should be aware of the following sources of information in the event of inclement weather or other problems that might cause the University to close. Remember, if the University is open, students are expected to be in attendance and all tests will be given. If the University is closed on a test day, expect the test to be given on the next class day.

The cancellation or delay of class announcements will normally be made by 6:00 a.m. through the local media. The latest information will be available on the University of Kentucky INFOLINE at 257-5684, University of Kentucky TV Cable Channel 16, and WUKY or the UK Website at www.uky.edu.

Professional Behavior
Aside from academic performance, students are professional in training. Such attributes as maturity, positive attitude, curiosity, individual initiative, respectful behavior towards others, motivation and perseverance are considered valuable assets in this quest.

Part of the professional behavior will include conducting yourself with the utmost of safety principles in mind with regards to you and others. This includes clarifying information about techniques when you are in need. If you have a history of problems in an area, it is up to you to inform your partner, and set the limits about the amount of practice that can be performed with you.

Class Assignments:

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<thead>
<tr>
<th>Assignments</th>
<th>Date Due</th>
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<td>Review Article on Diagnostic Accuracy</td>
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<td>B = 272 - 305.4</td>
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<td>Knee Examination</td>
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<td>11.8</td>
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<td>Written Exam on Muscle Injury, gait, and ankle</td>
<td>4/13</td>
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<td>Total</td>
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</table>
COURSE DESCRIPTION

This is an advanced athletic training course encompassing a regional study of orthopedic evaluation, assessment, management, and rehabilitation of the upper extremity, cervical and thoracic spine. A combination of discussion, lecture, and critical review of literature, laboratory, and student presentations will be employed. Laboratory experiences will focus on performance of evaluations of regional areas and specific manual techniques of rehabilitation. The course goals and objectives are to improve the student’s assessment skills and problem solving abilities, and to deepen the student’s knowledge of rehabilitation techniques for common athletic injuries by incorporating therapeutic exercise and specific therapeutic exercise equipment, manual therapy techniques, and modalities.

COURSE GOALS & OBJECTIVES

Explain:
1. The role of the athletic trainer in performing a biomechanical assessment of musculoskeletal disorders.
2. The concepts of assessments, clinical decision-making, and treatment planning.
3. The role of diagnostic testing in orthopedic evaluation and determining when additional diagnostic testing is appropriate.
4. The thought process necessary to determine the correct clinical assessment
5. Factors that predispose an athlete to potential injuries.

Describe:
6. The essential elements of an orthopedic evaluation, including the taking of patients’ history. The etiology and clinical profile of common pathologies encountered within each area of the peripheral and spinal joints.
7. The physiology of musculoskeletal injury and healing.
8. The rationale for use of various rehabilitation approaches for these common pathologies.

Demonstrate:
9. Ability to perform systematic clarifying examinations for all peripheral joints and all areas of the spine.
10. Ability to perform common special tests unique to each peripheral joint area and each spine area in an orthopedic evaluation.
11. Ability to perform a postural examination.
12. Ability to properly document an Athletic Training evaluation and plan of treatment in SOAP note format.
13. Proficiency in rehabilitation techniques of sport and orthopedic injuries.
14. Ability to choose appropriate interventions based on current theory for managing musculoskeletal injuries.
15. Ability to develop, write, and explain a rehabilitation program for an athlete recovering from a musculoskeletal injury.
16. Ability to critically review sports and orthopedic literature.
17. Ability to apply the relevant literature in developing a rehabilitation program that is evidence based.
18. Ability to create an oral and written case presentation to colleagues, including facilitation of a discussion among colleagues.
**Instructional Strategies**
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**Assigned Readings:**
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**Required Texts:**


**ADDITIONAL REFERENCES:**

- **Evidence-Based Guide to Therapeutic Physical Agents**, Belange A-Y Lippincott William & Wilkins, 2002
- **Therapeutic Exercise Techniques for Intervention** Bandy WD, Sanders B. Philadelphia: Lippincott William & Wilkins, 2001
- **Athletic Injuries and Rehabilitation (AIR)**, Zachazewski JE, Magee DJ, Quillen WS, W.B. Saunders, 1996
- **Clinical Eletrophysiology (CE)**, Robinson AJ, Snyder-Mackler L, Williams & Wilkins, 1995.

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<tbody>
<tr>
<td>Office:</td>
<td>Wethington Bldg Room 210C</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>E-mail:</td>
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<tr>
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## Schedule of Classes for Evaluation & Rehabilitation of Athletic Injuries

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
<th>Times</th>
<th>Location</th>
<th>Readings</th>
<th>Assignments Due</th>
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<tbody>
<tr>
<td>8/25/04</td>
<td>W</td>
<td>Overview of Class/Assignments</td>
<td>8 to 11</td>
<td>Shively</td>
<td>Magee Chp.1, Kendall Chps. 1 &amp; 2</td>
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<td>Neurological Considerations of Pain</td>
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<td>LAB</td>
<td>8 to 11</td>
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<td>Kendall Chp. 12, Review UE Dermatomes &amp; Myotomes (Magee)</td>
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<td>10/4/04</td>
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<td>Concussion Screening/Management</td>
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<td>CHS 220</td>
<td>Dr. Hosey Guest Lecture</td>
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| 10/6/04    | W   | 8-11  | Shively  | 1) Myofascial Pain Disorders  
2) Effects of Massage on Recovery  
On Blackboard in Alternative Therapies                                                                                                           |
| 10/7/04    |     |       |          |                                                                                               |
| 10/8/04    |     |       |          |                                                                                               |
| 10/9/04    |     |       |          |                                                                                               |
| 10/10/04   |     |       |          |                                                                                               |
| 10/11/04   | M   | 7:50-9:50 | CHS 220 | Magee Chapter 8  
Kendall Chapter 4 & 6                                                                                                                               |
| 10/12/04   |     |       |          |                                                                                               |
| 10/13/04   | W   | 8-11  | Shively  | 1) Facilitating Serape effect  
2) Integrating the trunk in upper extremity rehabilitation article  
Both articles are available on blackboard in the spine folder                                                                                         |
| 10/14/04   |     |       |          |                                                                                               |
| 10/15/04   |     |       |          |                                                                                               |
| 10/16/04   |     |       |          |                                                                                               |
| 10/17/04   |     |       |          |                                                                                               |
| 10/18/04   | M   | 7:50-9:50 | Shively  |                                                                                               |
| 10/19/04   |     |       |          |                                                                                               |
| 10/20/04   | W   | 8-11  | Shively  | Magee Chapter 5  
Exam 2 Due: Neuro-Screen, C-spine, T-spine                                                                                                           |
<p>| 10/21/04   |     |       |          |                                                                                               |
| 10/22/04   |     |       |          |                                                                                               |
| 10/23/04   |     |       |          |                                                                                               |
| 10/24/04   |     |       |          |                                                                                               |
| 10/25/04   | M   | 7:50-9:50 | CHS 220 | PRIA Chapter 13                                                                                                                                       |</p>
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<tr>
<td>10/27/04</td>
<td>W</td>
<td>Shoulder Rehabilitation</td>
<td>8-11 Shively</td>
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<td>11/1/04</td>
<td>M</td>
<td>Shoulder Surgical Techniques &amp; Rehabilitation Considerations</td>
<td>7:50-9:50 CHS 220</td>
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<td>11/2/04</td>
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<td>Presidential Election - NO CLASS</td>
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<td>11/3/04</td>
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<td>LAB Principles of Manual Therapy Joint Mobilizations</td>
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<td>PNF Techniques and Principles</td>
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<td>Elbow Anatomy &amp; Pathomechanics</td>
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<td>LAB Elbow Evaluation &amp; Special Tests</td>
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<td>Catch-up/Review</td>
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<td>11/24/04 Lab Practical: (Shoulder &amp; Elbow)</td>
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<td>Thanksgiving - NO CLASS</td>
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<td>Hand and wrist injury evaluation and rehabilitation chapter available on</td>
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Assignments

(1) Evidenced based modality assignment
Present evidence to support & refute the effectiveness of therapeutic modalities for pain control. Prepare a document to handout that includes: indications, contraindications, and settings.
• Electrical stimulation to reduce pain
• Cryotherapy to reduce pain
• Edema reduction

(2) Tissue healing article review assignment
Find 2 research articles on tissue healing following musculoskeletal injury. Confirm with classmates that they are different articles. The focus can be on the biomechanics of healing tissue, time frame of healing tissue, what loads pull out repaired tissue, effects of motion versus immobilization for example. Present and informally discuss the results and clinical applications of the research.

(3) Evidence-based problem solving assignment
Outline the initial evaluation and subsequent treatment plan for an athletic injury. The write-up should include the following:

**Initial Evaluation**
• Diagnosis
• Symptoms
• Mechanism of Injury
• Observation
• Function
• Special Tests
• Palpation
• Neurological Findings
• Differential Diagnosis

**Treatment Plan**
• List of problems
• Prioritize problems
• Specific Goals including time frames
  o Long-term
  o Short-term
• Treatment/Return to play plan
  o Specific interventions by week or post-injury phase
    ▪ Theory of effectiveness
    ▪ Evidence of effectiveness
  • Provide 2-3 research articles to support each theory

**EXAMPLE**
20 y/o male hockey player. Post bankart repair of right shoulder

8 weeks Post-Op

**List of problems:**
Decreased ROM
Decreased flexibility
Prioritize problems:
1. Decreased ROM
2. Decreased Flexibility

Goals:
Long Term:
1. Return to playing ice hockey with minimal pain 2/10 in 4 months
2. Increase full ROM in 2 months
3. Increase full strength (5/5) in 4 months

Short Term:
1. Increase flexion to $180^\circ$ in 4 weeks
2. Increase abduction to $180^\circ$ in 4 weeks
3. Increase internal rotation to T 8 in 6 weeks

Treatment Plan:
Phase 2
2-3 months

Intervention
Ultrasound to scar tissue. 3 MHz for 8 minutes at 1.5w/cm² with shoulder in $90^\circ$ abduction and externally rotated.

Theory
Heating collagen increases elasticity. This is a superficial tissue therefore a 3 MHz type US should be used.

Evidence
(4) Case Study Presentation

- Write-up and present a case study of one of your athletes that has suffered an injury.
- Use Athletic Therapy Today or Orthopedics format. Information for authors for manuscript submission to Athletic Therapy Today can be found at: http://www.humankinetics.com/products/journals/submissions.cfm?jid=ATT
  Orthopedics can be found at http://www.orthobluejournal.com/author.asp
- Include in the typed written record: a thorough history, physical exam, assessment, and treatment plan with the initial clinical diagnosis. Present any additional diagnostic tests and their results over the course of the case. This information should be conveyed accurately and succinctly.
- Describe in detail the treatment and rehabilitation program including dates and setbacks.
- In both the written and oral presentations present differential diagnostic possibility and describe how you ruled out other possible diagnoses. Describe to the audience your thought process in making your clinical decision.
- In the discussion section provide a synopsis of the pathological process in general and how this case followed or did not follow what would be a typical course.
- Prepare a professional 15 minute oral presentation using overheads, power point, video, etc (do not read overheads, rather use them to back you up). This should be approached as an educational presentation to the class.
- Include detailed history, mechanism of injury, physical examination, findings, differential diagnoses, final diagnosis, initial management, appropriate referrals, additional diagnostic tests (have diagnostic images available for the class to view or include in power point presentation), rehabilitation plan with short term and long term goals.
- Describe rehabilitation program in detail including dates, frequency, supportive devices, criteria for progression, and objective measurements as the patient progressed through rehabilitation process.
- Provide an overview to the class of the diagnostic pathology of this case including key evaluation points and typical treatment regimen for the particular pathology. Please thoroughly review the literature of the particular pathology you discuss.
- Incorporate a discussion on treatment approaches for this patient, asking questions of the audience, and attempt to incorporate the audience to demonstrate such things as exercises or special evaluation techniques.
- Allow 5 minutes for discussion and questions

Remain calm, if possible and enjoy the process

Your grade for this component will be based in part on the quality and thoroughness of your presentation, the clarity of your material, and your ability to elicit audience interaction through questioning and group participation. Grading criteria are attached.
AT 670
Scientific Inquiry in Athletic Training I:
Development of Experimental Research

Instructor:

Carl G. Mattacola, PhD, ATC
Office: Room 210E, CHS Building
Phone: 323-1100 ext 80860
E-mail: carlmat@uky.edu

Proposed Course Description:

The first course of a four part series. Scientific Inquiry in Athletic Training I is a 2 credit course introducing the student to the research process in athletic training. Coursework will address the conception and methodological procedures of designing and pursuing research in athletic training. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented.

Course Objectives:

By completion of the course the student will accomplish two or more of the following:

1. Access and utilize research databases.
2. Discuss the importance of research in athletic training.
3. Review and critically evaluate current research.
4. Design a research study.
5. Conduct a thorough review of literature.
6. Summarize content and critically review research studies.

General Requirements:

Students are to be aware of and meet the technical standards and behavioral standards as outlined in Technical Standards and the Behavioral Standards in Patient Care of the College of Allied Health Profession.

Instructional Strategies

The class will meet for 2 hours per week. The class will meet on Thursday mornings in the Shively Teaching and Research Laboratory. This class will be taught primarily as a discussion class with some didactic presentations. Students will be given reading and written assignments to complete for class discussion and instructor review. There will be some laboratory experiences with research equipment to familiarize the student with the proper use of equipment.

Required Texts:


Assigned Readings:

Electronic Reserve: [www.uky.edu/libraries/reserves/ereserves.html](http://www.uky.edu/libraries/reserves/ereserves.html)

Recommended Texts:


Additional References: The following references can be found at: [http://www.nata.org/jat/index.html](http://www.nata.org/jat/index.html)


Feedback

1. Students are encouraged to come to the instructor's office to review tests or to discuss progress in the class. This will be the only means for review of evaluation instruments.
2. Tests and/or papers will be retained by the course coordinator until approximately three weeks into the succeeding semester or summer session (Feb. 15, June 1, Aug. 1, and Sept. 15).

Academic Honesty

1. Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating and plagiarism violate the rules of the University and the ethical standards of members in the allied health profession. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the University. Students may view the Student Rights & Responsibilities Document at [http://www.uky.edu/StudentAffairs/Code/part1.html](http://www.uky.edu/StudentAffairs/Code/part1.html).

Withdrawals and Incompletes

1. The last day to withdraw from the course is at the end of the ninth week for fall or spring semester. No withdrawals will be signed after that date.

2. It is the student's responsibility to properly process withdrawals. Students who fail to process withdrawals or who process them after the time that grade report sheets are printed, will receive a grade of F on the official grade sheet. To correctly process a withdrawal the student must obtain the signature of Dr. Mattacola, obtain the signature of the student's advisor, and take the withdrawal form to the Registrar's office.

3. Incomplete (I) grades will be given only in extenuating circumstances and never as a replacement for a failing or substandard grade. Any student requesting an incomplete grade must see the course coordinator, Dr. Mattacola, for approval and for additional rules governing incomplete grades.

University Closing

Students should be aware of the following sources of information in the event of inclement weather or other problems which might cause the University to close. Remember, if the University is open, students are expected to be in attendance and all tests will be given. If the University is closed on a test day, expect the test to be given on the next class day.

The cancellation or delay of classes’ announcements will normally be made by 6:00 a.m. through the local media. The latest information will be available on the University of Kentucky INFOLINE at 257-5684, University of Kentucky TV Cable Channel 16, and WUKY or the UK Website at [www.uky.edu](http://www.uky.edu).
Instructor:
Carl G. Mattacola, PhD, ATC
Office: Room 210E CHS Building
Phone: 323-1100 ext 80860
E-mail: carlmat@uky.edu

Proposed Course Description:
The second course of a four part series. Scientific Inquiry in Athletic Training II is a 2 credit course that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Coursework will address the methodological procedures of designing and pursuing research in athletic training. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented.

Course Objectives:
By completion of the course the student will accomplish the following:

1. Design and implement methodological procedures.
2. Prepare and defend a scholarly research study.
3. Utilize and become proficient in the bibliographic database; Reference Manager.
4. Demonstrate proficiency with research equipment used in athletic training research.
5. Define and describe the importance of reliability and validity in the research process.
6. Demonstrate with acquired data the reliability and validity of a methodological procedure.
7. Explain ethical considerations pertinent to research in athletic training.
8. Discuss ethical considerations related to the use of human and animal experimentation.
9. Develop an IRB.

General Requirements:
Students are to be aware of and meet the technical standards and behavioral standards as outlined in Technical Standards and the Behavioral Standards in Patient Care of the College of Allied Health Profession.

Instructional Strategies
The class will meet for 2 hours per week. The class will meet on Thursday mornings in the Shively Teaching and Research Laboratory. This class will be taught primarily as a discussion class with some didactic presentations. Students will be given reading and written assignments to complete for class discussion and instructor review. There will be some laboratory experiences with research equipment to familiarize the student with the proper use of equipment.

Required Texts:


**Assigned Readings:**  
Electronic Reserve: [www.uky.edu/libraries/reserves/ereserves.html](http://www.uky.edu/libraries/reserves/ereserves.html)  

**Recommended Texts:**


**Additional References:** The following references can be found at: [http://www.nata.org/jat/index.html](http://www.nata.org/jat/index.html)


**Feedback**

1. Students are encouraged to come to the instructor's office to review tests or to discuss progress in the class. This will be the only means for review of evaluation instruments.
2. Tests and/or papers will be retained by the course coordinator until approximately three weeks into the succeeding semester or summer session (Feb. 15, June 1, Aug. 1, and Sept. 15).

**Academic Honesty**

1. Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating and plagiarism violate the rules of the University and the ethical standards of members in the allied health profession. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the University. Students may view the Student Rights & Responsibilities Document at [http://www.uky.edu/StudentAffairs/Code/part1.html](http://www.uky.edu/StudentAffairs/Code/part1.html).

**Withdrawals and Incompletes**

1. The last day to withdraw from the course is at the end of the ninth week for fall or spring semester. No withdrawals will be signed after that date.

2. It is the student's responsibility to properly process withdrawals. Students who fail to process withdrawals or who process them after the time that grade report sheets are printed, will receive a grade of F on the official grade sheet. To correctly process a withdrawl the student must obtain the signature of Dr. Mattacola, obtain the signature of the student's advisor, and take the withdrawl form to the Registrar's office.

3. Incomplete (I) grades will be given only in extenuating circumstances and never as a replacement for a failing or substandard grade. Any student requesting an incomplete grade must see the course coordinator, Dr. Mattacola, for approval and for additional rules governing incomplete grades.

**University Closing**

Students should be aware of the following sources of information in the event of inclement weather or other problems which might cause the University to close. Remember, if the University is open, students are expected to be in attendance and all tests will be given. If the University is closed on a test day, expect the test to be given on the next class day.

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Instructor:

Carl Mattacola, PhD, ATC
Office: Room 210E, CHS Building
Phone: 323-1100 ext 80860
E-mail: carlmat@uky.edu

Proposed Course Description:

The third course of a four part series. Scientific Inquiry in Athletic Training III is a 2 credit course that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Coursework will address the design of research in athletic training. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented.

Course Objectives:

By completion of the course the student will accomplish the following:

1. Discuss various statistical and methodological research designs.
2. Discuss and demonstrate competence in publication styles.
3. Discuss the advantages and disadvantages of statistical models for data analysis.
4. Critic and demonstrate proficiency in organizing results of an acquired data set using data acquisition software specific to athletic training / sports medicine.
5. Demonstrate proficiency in developing figures and tables that are manuscript ready.
6. Demonstrate proficiency in critically reviewing and preparing a research abstract.

General Requirements:

Students are to be aware of and meet the technical standards and behavioral standards as outlined in Technical Standards and the Behavioral Standards in Patient Care of the College of Allied Health Profession.

Instructional Strategies

The class will meet for 2 hours per week. The class will meet on Thursday mornings in the Shively Teaching and Research Laboratory. This class will be taught primarily as a discussion class with some didactic presentations. Students will be given reading and written assignments to complete for class discussion and instructor review. There will be some laboratory experiences with research equipment to familiarize the student with the proper use of equipment.

Required Texts:


**Assigned Readings:**

Electronic Reserve: [www.uky.edu/libraries/reserves/ereserves.html](http://www.uky.edu/libraries/reserves/ereserves.html)


**Recommended Texts:**


**Additional References:** The following references can be found at: [http://www.nata.org/jat/index.html](http://www.nata.org/jat/index.html)


**Feedback**

1. Students are encouraged to come to the instructor's office to review tests or to discuss progress in the class. This will be the only means for review of evaluation instruments.

2. Tests and/or papers will be retained by the course coordinator until approximately three weeks into the succeeding semester or summer session (Feb. 15, June 1, Aug. 1, and Sept. 15).

**Academic Honesty**

1. Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating and plagiarism violate the rules of the University and the ethical standards of members in the allied health profession. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the University. Students may view the Student Rights & Responsibilities Document at [http://www.uky.edu/StudentAffairs/Code/part1.html](http://www.uky.edu/StudentAffairs/Code/part1.html).

**Withdrawals and Incompletes**

1. The last day to withdraw from the course is at the end of the ninth week for fall or spring semester. No withdrawals will be signed after that date.

2. It is the student's responsibility to properly process withdrawals. Students who fail to process withdrawals or who process them after the time that grade report sheets are printed, will receive a grade of F on the official grade sheet. To correctly process a withdrawal the student must obtain the signature of Dr. Uhl’s, obtain the signature of the student's advisor, and take the withdrawal form to the Registrar's office.

3. Incomplete (I) grades will be given only in extenuating circumstances and never as a replacement for a failing or substandard grade. Any student requesting an incomplete grade must see the course coordinator, Dr. Mattacola, for approval and for additional rules governing incomplete grades.

**University Closing**

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The cancellation or delay of classes’ announcements will normally be made by 6:00 a.m. through the local media. The latest information will be available on the University of Kentucky INfoline at **257-5684**, University of Kentucky TV Cable Channel **16**, and WUKY or the UK Website at [www.uky.edu](http://www.uky.edu).
AT 673
Scientific Inquiry in Athletic Training IV:
Synthesis and Preparation of Data

Instructor:
Carl G. Mattacola, PhD, ATC
Office: Room 210E, CHS Building
Phone: 323-1100 ext 80860
E-mail: carlmat@uky.edu

 Proposed Course Description:
The final course of a four part series. Scientific Inquiry in Athletic Training IV is a 2 credit course to that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Coursework will focus on developing the skills needed to critically synthesize material with accepted practice, and prepare professional presentations using acquired data and an appropriate statistical analysis. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented.

Course Objectives:
By completion of the course the student will accomplish the following:

1. Discuss and critically evaluate the Discussion components of accepted manuscripts in the medical literature
2. Demonstrate proficiency in developing a Poster Presentation using computer software.
3. Demonstrate proficiency in preparing and printing a Poster Presentation using standard computer applications and hardware
4. Present and defend to the class an oral and poster presentation using acquired data.
5. Become familiar with Human Resource Management in the employment and research setting.
6. Discuss employment practices in a changing healthcare system.
7. Discuss the importance and preparation of effective negotiation strategies.
8. Discuss and explore the various funding agencies specific to athletic training.
9. Develop a research agenda.
10. Develop a working grant application.

General Requirements:
Students are to be aware of and meet the technical standards and behavioral standards as outlined in Technical Standards and the Behavioral Standards in Patient Care of the College of Health Sciences Professions.

Instructional Strategies
The class will meet for 2 hours per week. The class will meet on Thursday mornings in the Shively Teaching and Research Laboratory. This class will be taught primarily as a discussion class with some didactic presentations. Students will be given reading and written assignments to complete for class discussion and instructor review. There will be some laboratory experiences with research equipment to familiarize the student with the proper use of equipment.

Required Texts:
Assigned Readings:

Electronic Reserve: [www.uky.edu/libraries/reserves/ereserves.html](http://www.uky.edu/libraries/reserves/ereserves.html)

Recommended Texts:


Additional References: The following references can be found at: [http://www.nata.org/jat/index.html](http://www.nata.org/jat/index.html)


Feedback

1. Students are encouraged to come to the instructor's office to review tests or to discuss progress in the class. This will be the only means for review of evaluation instruments.

2. Tests and/or papers will be retained by the course coordinator until approximately three weeks into the succeeding semester or summer session (Feb. 15, June 1, Aug. 1, and Sept. 15).

Academic Honesty

1. Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating and plagiarism violate the rules of the University and the ethical standards of members in the allied health profession. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the University. Students may view the Student Rights & Responsibilities Document at [http://www.uky.edu/StudentAffairs/Code/part1.html](http://www.uky.edu/StudentAffairs/Code/part1.html).

Withdrawals and Incompletes

1. The last day to withdraw from the course is at the end of the ninth week for fall or spring semester. No withdrawals will be signed after that date.

2. It is the student's responsibility to properly process withdrawals. Students who fail to process withdrawals or who process them after the time that grade report sheets are printed, will receive a grade of F on the official grade sheet. To correctly process a withdrawal the student must obtain the signature of Dr. Mattacola, obtain the signature of the student's advisor, and take the withdrawl form to the Registrar's office.

3. Incomplete (I) grades will be given only in extenuating circumstances and never as a replacement for a failing or substandard grade. Any student requesting an incomplete grade must see the course coordinator, Dr. Mattacola, for approval and for additional rules governing incomplete grades.

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Independent Study in Anatomy  
AT 660  
Summer 2005

Instructors:

Carl G. Mattacola, PhD, ATC  
Office: Room 210E, CHS Building  
Phone: 323-1100 ext 80860  
Email: carlmat@uky.edu

Ann Livengood, MEd, ATC  
Office: Room 206C, CHS Building  
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Email: allive2@uky.edu

Course Description: This course is a 3-credit cadaver anatomy laboratory course, which will include examination and dissection of the human cadaver. Lectures and laboratory experience will emphasize the musculoskeletal, articular, nervous, and vascular systems particularly as they relate to athletic injury mechanism and evaluation.

Objectives:

General Course Objectives:  
At the completion of the course the student will be able to:

A. Locate on the cadaver; structures of the musculoskeletal, articular, nervous and vascular systems.

B. Understand the functional application of these anatomical structures (including muscular actions and innervations)

C. Apply knowledge of the anatomical structures as they relate to the various pathologies seen in athletics.

General Requirements:

Students are to be aware of and meet the technical standards and behavioral standards as outlined in Technical Standards and the Behavioral Standards in Patient Care of the College of Allied Health Profession.

Instructional Strategies

The class will meet for 3 hours per day (8-11am). The class will meet on Monday - Friday mornings in room MN342 of the Medical Center. This class will be taught primarily as a laboratory dissection with some didactic lecture. Students will be given reading and written assignments and are expected to come to class prepared for the next day’s dissection having reviewed the material prior to coming to class. Students are expected to finish any dissecting that was not competed in class on their own time in the afternoons and evenings.

Required Texts:


Recommended Texts:


Feedback

1. Students are encouraged to come to the instructor's office to review tests or to discuss progress in the class. This will be the only means for review of evaluation instruments.
2. Tests and/or papers will be retained by the course coordinator until approximately three weeks into the succeeding semester or summer session (Feb. 15, June 1, Aug. 1, and Sept. 15).

**Academic Honesty**

1. Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating and plagiarism violate the rules of the University and the ethical standards of members in the allied health profession. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the University. Students may view the Student Rights & Responsibilities Document at [http://www.uky.edu/StudentAffairs/Code/part1.html](http://www.uky.edu/StudentAffairs/Code/part1.html).

**Withdrawals and Incompletes**

1. The last day to withdraw from the course is at the end of the ninth week for fall or spring semester. No withdrawals will be signed after that date.

2. It is the student's responsibility to properly process withdrawals. Students who fail to process withdrawals or who process them after the time that grade report sheets are printed, will receive a grade of E on the official grade sheet. To correctly process a withdrawal the student must obtain the signature of Dr. Mattacola, obtain the signature of the student's advisor, and take the withdrawal form to the Registrar's office.

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**Course Assignments:**

**Grading Procedures:**
Completion of all course assignments are expected on the stated due date. Students will be graded on the following:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 3</td>
<td>20%</td>
</tr>
<tr>
<td>Class Presentation I:</td>
<td>5%</td>
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<tr>
<td>Class Presentation II:</td>
<td>5%</td>
</tr>
<tr>
<td>Dissection</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>20%</td>
</tr>
</tbody>
</table>

**Grading Scale:**

- 91.5 – 100 A
- 82.5 – 91.4 B
- 73.5 – 82.5 C
- Below 73.5 E

**Care of the Cadaver and Prosections**
Athletic Training students have been given the unique opportunity and privilege of dissecting the human body. This opportunity must not be taken lightly as most persons have willed their bodies to the Department of Anatomy and Neurobiology’s Body Bequeathal Program for your learning experience. It is imperative that the cadavers be treated with respect and dignity.

**Cadavers must be kept moist and well covered at all times.** When the table is open and the cadaver is not being used, it must be kept covered with the cloth provided. The cloth should be kept moist at all times. Moistening fluid is available to you in the yellow containers throughout the lab. At the end of each dissection session, the body should be moistened with the wetting solution provided, and carefully covered with the moistened cloth. The table should then be closed and the vent closed.

**Do not leave unattended cadavers or prossections uncovered, and do not wait for the next person to do the covering.**

**General Guidelines for the Dissections Laboratory**

Twenty-four hour access to the laboratory is available for review and/or completion of the dissections between scheduled labs. **This access is a privilege** and will be revoked if appropriate care of the cadaveric material and/or appropriate personal demeanor is not exhibited.

It is advisable to wear lightweight, easily washed clothing to the lab. Surgical scrubs may be purchased at the bookstore or through medical supply houses or at Wal-Mart. In addition to scrubs, reusable rubber (available at the medical bookstore), or disposable latex gloves (available at the bookstore or through medical supply houses, Sam’s Club etc.) should be worn at all times.

If you wear contact lenses, you may find the preservatives in the cadaveric material irritate your eyes. Switching to glasses alleviates this problem.

Please place lab wastes such as cadaveric material removed by dissection in the gray containers located throughout the lab. **All tissue containing bone must be kept on your table.** This material is cremated and the ashes may be returned to the family of the donor.

Old and/or broken scalpel blades must be disposed of in the red containers placed throughout the lab.

There are certain rules concerning use of the gross anatomy lab (MS 203) which must be adhered to:

- no food or drink whatsoever may be taken into the lab
- no visitors (friends, relatives, etc.) may be taken into the lab without prior permission of the course director
- no cameras or other photographic equipment may be taken into the lab
- no cadaveric material leaves the lab at any time for any reason
- unprofessional behavior will not be tolerated in the lab

**Dissection Instructions**

The majority of osteology and surface anatomy features in the course will be left to each student to accomplish by independent study from your atlas as listed in the dissection manual.

Each dissection group of 5 students should divide themselves into groups of 2-3. For the most part each group will dissect one side of the body. **The responsibilities of dissection are to be shared** on a rotation basis by all members of the group at each table. Non-participants generally experience difficulty at time of the practical exam.

In each group of 2-3:
- One student will dissect
- One will read the dissection instructions and handle the atlas looking up the appropriate figures
- Do not come to the laboratory without an atlas. (there are usually some available in the lab that were left over from the PT/PA class in the spring)
- Always wear gloves, either reusable or disposable.

Do not leave unattended cadavers or prossections uncovered, and do not wait for the next person to do the covering.
It is your responsibility to keep your table clean and as grease-free as possible throughout the semester. Lysol foam cleaner is provided to assist you with this.

The scalpel is generally used only for cutting and reflecting skin, muscles, and other large structures. Do not leave scalpel blades or scalpels on the table- someone will get hurt!

Most dissections deep to the surface is achieved by blunt dissection using a probe, fingers, scissors, etc. The lab instructors will demonstrate these techniques in the laboratory but like most skills they are learned by practice- and patience.

Each laboratory session will describe where the skin incisions should be made. Dissection instructions are highlighted as bold and italicized text. As a rule, skin removal is limited to the anatomical region being studied that session.

Typical dissection kits are not suitable for lab dissections. You should purchase the following, available individually, or in a kit from the medical bookstore:

**Required Dissection Equipment:**

- Many -No.22 scalpel blades (or similarly curved blade)
- Gloves

Complete each stage of the dissection before proceeding. When you complete the region to be dissected, be sure you can identify each structure listed in the Structure Checklist for that region. In addition, relate the region to previous dissections and review that area as a whole rather than isolation. This method is beneficial for continuity and appreciation of the body as a whole rather than as a collection of isolated regions.
HIC LOCUS UBI MORS GAUDET SUCCURRERE VITAE-
(Here is the place where death enjoys helping life)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Text Book pp.</th>
<th>Dissector Guide pp. on CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/9/04 M</td>
<td>Orientation (meet in MN342) 9am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/10/04 T</td>
<td>Superficial Back</td>
<td>2-48, 432-460, 691-695</td>
<td>14-17</td>
</tr>
<tr>
<td>5/12/04 R</td>
<td>Vertebral Ligaments, Spinal Cord, Neck mm.</td>
<td>475-495</td>
<td>23-24</td>
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<tr>
<td>5/13/04 F</td>
<td>Neck mm., Suboccipital Region</td>
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<tr>
<td>5/16/04 M</td>
<td>Review</td>
<td></td>
<td></td>
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<tr>
<td>5/17/04 T</td>
<td>Exam 1</td>
<td></td>
<td></td>
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<tr>
<td>5/19/04 R</td>
<td>Shoulder, Axilla, Brachial Plexus</td>
<td>695-720</td>
<td>25-33, 48-49</td>
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<tr>
<td>5/20/04 F</td>
<td>Brachial Plexus, Arm, Elbow (Wildcat)</td>
<td>720-763, 795-807</td>
<td>33-38, 55-56</td>
</tr>
<tr>
<td>5/23/04 M</td>
<td>Forearm, Wrist, Hand</td>
<td></td>
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<tr>
<td>5/24/04 T</td>
<td>Review</td>
<td>763-781, 807-810</td>
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<tr>
<td>5/25/04 W</td>
<td>Exam 2</td>
<td></td>
<td></td>
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<tr>
<td>5/27/04 F</td>
<td>Gluteal Region, Posterior Thigh</td>
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<tr>
<td>5/30/04 M</td>
<td>Memorial Day- no class</td>
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<tr>
<td>6/01/04 W</td>
<td>Popliteal Fossa, Knee</td>
<td>571-575, 617-632</td>
<td>76-79, 86-88</td>
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<tr>
<td>6/02/04 R</td>
<td>Knee Surgery Day</td>
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<tr>
<td>6/03/04 F</td>
<td>Leg, Ankle</td>
<td>575-593, 632-637</td>
<td>67-69, 76-79, 88</td>
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<tr>
<td>6/06/04 M</td>
<td>Ankle, Foot</td>
<td>593-607, 632-646</td>
<td>69-71, 79-83, 88-91</td>
</tr>
<tr>
<td>6/07/04 T</td>
<td>Exam 3</td>
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