Ahart 210.01: Prevention and Care of Athletic Injuries- Blended Learning Format

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AHAT 210 - PREVENTION AND CARE OF ATHLETIC INJURIES – BLENDED LEARNING FORMAT

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ONLINE RESOURCES: https://moodle.umt.edu/login/index.php
http://www.mhhe.com/prentice15e

PREREQUISITE OR COREQUISITE: SCN 201/202 MANDATORY OR EQUIVALENT

COURSE DESCRIPTION: Development of knowledge of prevention, assessment, treatment, rehabilitation, emergency care of athletic injuries.

OBJECTIVES: The student should be able to:
1. Recognize the historical foundations of athletic training.
2. Identify the various professional organizations dedicated to sports medicine.
3. Differentiate the roles and responsibilities of the athletic trainer, coach, and team physician.
4. Explain the function of support personnel in sports medicine.
5. Explain the importance of the preparticipation physical examination.
6. Describe the current systems for gathering records and injury surveillance data.
7. Define the legal concepts of torts, negligence, and assumption of risk.
8. Explain product liability.
9. Identify measures to take to minimize the chances of litigation.
10. Identify 3rd-Party Reimbursement.
11. Examine the role of the ATC and the strength and conditioning coach in athlete fitness.
12. Identify the principles of conditioning.
13. Defend the importance of warm-up and cool-down periods.
14. Evaluate the importance of strength, flexibility, and cardiovascular endurance for athletic performance and injury prevention.
15. Analyze the specific techniques and principles for improving cardiovascular endurance, muscular strength and flexibility.
16. Discuss fitness testing to assess various fitness parameters.
17. Analyze the mechanical properties of tissue based on stress-strain curve model
18. Examine the anatomical characteristics of the musculotendinous unit. Synovial joint, bone, and nerve.
19. Identify the various injuries to the musculotendinous unit, synovial joint, bone and nerve tissue
20. Contrast the three phases of tissue healing.
21. Classify the physiological events of each phase of tissue healing.
22. Discuss the healing process relative to various soft-tissue structures, including cartilage, ligament, muscle, tendon, nerve and bone.
23. Formulate the management for treating acute fractures.
24. Understand the neurophysiology of pain, three mechanisms for pain control and techniques for assessing pain.
25. Establish a plan for handling emergency situations.
26. Explain the importance of and know CPR, use of an AED, and how to manage airway obstruction.
27. Describe types of hemorrhage, shock and management.
28. Describe techniques of moving and transporting the injured patient.
29. Review the terminology used in injury evaluation.
30. Apply HOPS off-the-field evaluation protocol.
31. Organize the process for documenting the findings of an off-the-field evaluation.
32. Recognize various diagnostic techniques available through an MD or health care facility.
33. Identify anatomical and functional features of the foot, ankle and lower leg.
34. Discuss how foot, ankle and lower leg injuries can be prevented.
35. Identify specific injuries that occur in the foot, ankle and lower and discuss plans for management.
36. Recognize normal structural and functional knee anatomy.
37. Explain how knee injuries can be prevented.
38. Compare and contrast male/female differences in knee injuries.
39. Discuss etiological factors, symptoms, signs and management of ligamentous, menisci, patellofemoral and extensor mechanism.
40. Recognize normal structural and functional thigh, hip, groin, and pelvis anatomy.
41. Recognize various injuries of the thigh, hip, groin and pelvis.
42. Outline etiological factors, symptoms, signs and management of thigh, hip, groin and pelvis.
43. Point out critical anatomical features of the four articulations in the shoulder complex.
44. Recognize the steps that can be taken to minimize injuries to the shoulder complex.
45. Explain how the joint capsule, ligaments, and muscles maintain shoulder stability.
46. Recognize the anatomical and functional dynamics of shoulder impingement syndrome and how it is managed.
47. Recall the structural and functional anatomy of the elbow, forearm, wrist and hand and relate to overuse and traumatic injuries.
48. Understand proper immediate and follow-up management of elbow, forearm, wrist and hand injuries.
49. Describe the anatomy of the entire spine.
50. Understand how nerve roots from the spinal cord combine to form specific peripheral nerves.
51. Point out measures to prevent spinal injuries.
52. Recognize specific injuries that can occur to the regions of the spine in terms of etiology, signs, symptoms, and management.
53. Propose a plan to help minimize the frequency of head injuries.
54. Review the related anatomy of the head.
55. Recognize the seriousness of a variety of head injuries and the length of recovery necessary.
56. Discuss the value of neurocognitive tests in helping to determine the stage of recovery following concussion.
57. Understand the anatomy and function of thorax and abdomen structures.
58. Recognize various injuries and conditions to the structures of the thorax and abdomen.

EVALUATION OF STUDENT OUTCOMES:

1. **WRITTEN EXAMS** – Students will complete 3 written exams throughout the semester containing multiple choice, short answer, matching, and essay questions.

2. **QUIZZES** - Chapter quizzes & tests - Moodle

3. **ASSIGNMENTS** – Moodle & In-class

GRADING SYSTEM:

**Scale:** (percentage of total points)

- **A = 93.50 – 100.00**
- **A- = 90.00 – 93.49**
- **B+ = 87.50 – 89.99**
- **B = 83.50 – 87.49**
- **B- = 80.00 – 83.49**
- **C+ = 77.50 – 79.99**
- **C = 73.50 – 77.49**
- **C- = 70.00 – 73.49**
- **D = 65.00 – 69.99**
- **F = < 65 %**
**POINT BREAKDOWN:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>3 MOODLE EXAMS</td>
<td>60%</td>
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<tr>
<td>MOODLE QUIZZES</td>
<td>20%</td>
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<tr>
<td>CLASS PARTICIPATION/ATTENDANCE</td>
<td>10%</td>
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<tr>
<td>ASSIGNMENTS (MOODLE &amp; IN-CLASS)</td>
<td>10%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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**American w/Disabilities Act (ADA):** The University of Montana upholds the ADA by providing reasonable accommodations to individuals with disabilities. If any student requires reasonable accommodations to adequately perform the duties of the class, please see the instructor as soon as possible so that a plan can be made for specific modifications.

**Student Conduct Code:** All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://www.umt.edu/SA/VPSA/index.cfm/page/1321
<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>CLASS READINGS/DUE</th>
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<tbody>
<tr>
<td>August 26</td>
<td>Introduction to Sports Medicine</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>August 27-</td>
<td><strong>Meet on Wednesday</strong> for F2F (no class on Monday - Labor Day) - Pre-</td>
<td>Chapter 2</td>
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<tr>
<td>September 4</td>
<td>Participation Physical Exam Moodle</td>
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<td>September 5-9</td>
<td>Legal Concerns</td>
<td>Chapter 3</td>
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<td>September 10-16</td>
<td>Fitness and Conditioning/Therapeutic Exercise</td>
<td>Chapter 4, 16</td>
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<td>September 24-30</td>
<td>Mechanism of Injuries</td>
<td>Chapter 9</td>
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<tr>
<td>October 1-7</td>
<td>Tissue Response to Injury</td>
<td>Chapter 10</td>
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<td>October 8-14</td>
<td>On the Field Acute Care &amp; Emergency Procedures/Environmental Concerns</td>
<td>Chapter 12, 6</td>
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<td>October 15-21</td>
<td>Off Field Injury Evaluation - Test 1 Moodle</td>
<td>Chapter 13</td>
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<td>October 22-28</td>
<td>Foot, Ankle, Low Leg</td>
<td>Chapter 18, 19</td>
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<td>October 29-</td>
<td>Knee</td>
<td>Chapter 20</td>
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<td>November 4</td>
<td><strong>Meet on Wednesday</strong> for F2F (no class on Monday - Veteran’s Day) -</td>
<td>Chapter 21</td>
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<tr>
<td>November 7-10</td>
<td>Thigh, Hip, &amp; Pelvis</td>
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<td>November 12-18</td>
<td>Shoulder Complex</td>
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<td>November 19-25</td>
<td>Elbow, Forearm, Wrist, and Hand</td>
<td>Chapter 23, 24</td>
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<tr>
<td>November 26-</td>
<td>Head, Face &amp; Spine</td>
<td>Chapter 25, 26</td>
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<td>December 2</td>
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<tr>
<td>December 3-8</td>
<td>Abdomen, Thorax</td>
<td>Chapter 27</td>
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<tr>
<td>December 9-13</td>
<td><strong>FINAL EXAM – MOODLE - TBA</strong></td>
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