Stony Brook University
CEP 513: Health Sciences Applied to Coaching
Care and Prevention of Athletic Injuries
(updated: February 2014)

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Office Hours: Online: TBA and by appointment

Course Description:
This course is an in-depth analysis of the care and prevention of athletic injuries. As a result of the increasing awareness of the specialized nature of athletic injuries, considerable emphasis is now being placed on the importance of this developing area of sports medicine.

Course Overview:
This course provides an overview of the general concepts and principles related to athletic injury prevention, recognition, evaluation, management, and rehabilitation. The profession of athletic training is explored, along with contributions from the disciplines of exercise, medicine, physical therapy, physical education, and sports. This study should provide the fundamental principles necessary for preventing and managing injuries and illnesses common to the athlete.

Student Learning Objectives:
1. Students will define the nature of a sports injury using the appropriate terminology.
2. Students will discuss the role of a coach as a member of the athletic health care team.
3. Students will identify the potential for liability in athletics and devise methods to minimize risk.
4. Students will discuss and develop preventive strategies to combat the onset of injuries in athletics.
5. Students will describe the steps of a basic physical examination conducted on an injured athlete.
6. Students will identify and discuss the most common injuries found in sport, including the generation of an in-depth presentation on one athletic injury.
7. Students will recognize the latest guidelines on concussion management.
8. Students will discuss the importance of rehabilitation following athletic injury.

Textbooks:
Required:


Books can be purchased online through the campus bookstore at:
http://ws.cc.stonybrook.edu/provostliasn/bookstore/

Additional Requirements:
Access to PowerPoint. Submitted assignments must be saved and submitted in rich text format (rtf).

Blackboard Help:
For Blackboard-related help issues, click the SPD Online Support link from Blackboard’s home page, under "My Courses". You may also receive Blackboard assistance in the following ways:

1. Weekdays: e-mail helpme@stonybrook.edu, or call 631-632-9602
2. Off hours: contact SUNY Learning Network at slnsupport@itec.suny.edu, or call 1-800-875-6269
   - Weekdays (Mon.-Thurs.) 5 PM - 9 PM EST
   - Saturday 10 AM - 5 PM EST
**Course Grade Assessment:**
Class Participation (Discussion Board) (8: 9 weeks, with lowest grade dropped) 35%
Quizzes (6) 20%
Article Reviews (3) 20%
Athletic Injury Presentation (1) 25%

**Grade Calculation:**
93-100: A
90-92: A-
87-89: B+
83-86: B
80-82: B-

77-79: C+
73-76: C
70-72: C-
69 & below: F

**Letter Grade Values:**
The following are the point values that will be used in grading assignments:
A+: 98.5  B+: 88.5  C:
B+: 81.5  C+: 75  C: 71.5

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**Course Requirements**

**Overview:**
This course is divided into ten weeks, each with a definite start and end point; each week begins at 6:00 A.M. on Monday, and ends promptly at 6:00 P.M. on Sunday. All Discussion Board postings, quizzes, written assignments, and the presentations have a specified due date. No Discussion Board postings may be made after Sunday at 6:00 P.M., and any assignments or quizzes submitted after that time are considered to be late. Under no circumstance should an assignment be e-mailed to the instructor. **All assignments are due on time.**

Late assignments will be graded as follows:
- Up to 24 hours late = deduct 10 points (Ex.: A+ reduced to B+)
- Up to 1 week late = deduct 20 points (Ex.: A+ reduced to C+)
- Over 1 week late = F

*This is a graduate level class; all written assignments are expected to be of graduate caliber!*

**Class Participation:**
All students are required to contribute to the Discussion Board, in the form of one posting per day, on three different days (for a total of three posts per week). All postings must contribute to the content of the course, utilizing references when appropriate. Acceptable postings must be substantive, a minimum of 100 words, with at least one post replying to a fellow student or to the instructor, and at least one post including research from a scholarly, peer-reviewed journal article. Detailed requirements for this very important component of your overall course grade are located on the course website. **Please see the Discussion Board Grading Policy document, in the Syllabus & Course Documents section of Blackboard, for detailed requirements!**

**Quizzes:**
There will be six quizzes on selected text readings. Each quiz will be timed, meaning that once you start a quiz, you must complete it within a set number of minutes. Therefore, do not take a quiz until you are completely ready, and free from distractions. Once you start a quiz, you cannot pause or elect to finish the quiz at a later time. You have one chance to take each quiz. Due to the nature of this course, the quizzes are “open book”, but because they are timed, you must study!

**Article Reviews:**
You will select an article from each of the following categories, write a review of the article (saving files as “rich text format”), and submit it via the Article Reviews link by the specified date. Articles must come from a peer-reviewed journal found through Stony Brook’s online library; website, newspaper, and magazine articles are
You are permitted to select articles that will be used as resources for your athletic injury presentation.

Categories include:
1. Prevention of athletic injuries
2. The description, evaluation, and/or treatment of a specific injury
3. Rehabilitation of athletic injuries

The reviews must include:
1. A link to the article along with a bibliographical citation of the referenced article
2. A 600-900 word written summary of the article, including:
   a. A brief, but complete, description of the main points
   b. Your commentary on the article

**Athletic Injury Presentations:**
Please see the Presentations section of Blackboard for specific and detailed requirements!
As a quick overview, each student will research and prepare a *PowerPoint* presentation(s) on an assigned topic concerning a specific athletic injury.

Each presentation must include the following:
1. Learning objectives
2. Anatomy of the involved body part
3. Typical mechanisms of injury
4. How a coach may recognize the injury
5. How a coach may perform a simple evaluation of the injury
6. Initial treatment of the injury
7. Detailed rehabilitation protocol for the injury
8. Guidelines in returning to athletic activity
9. Suggestions for preventing this type of injury
10. Discussion questions
11. A bibliography of at least three references with web addresses

An online question/answer/commentary session will follow each presentation. Presenters will be graded on their responses to the posted questions and/or comments.

For those who do not have *PowerPoint* on their home or work computers, information on how to download a *PowerPoint* viewer will be posted in the Syllabus & Course Documents section of Blackboard; this will allow students to view, but not create, *PowerPoint* presentations at home.

**Extra-Credit:**
Please note that extra-credit assignments are not an option, and may only be offered upon request to students who, despite extraordinary efforts on their part, find themselves struggling with some course material.

**Contacting the Instructor:**
The best way to reach the instructor is by e-mail via Blackboard (follow the Tools link to Send Email). Any general questions about the course, assignments, etc. may be asked on the Discussion Board, rather than e-mailed.

**Instructor’s Participation:**
The instructor will check and respond to any e-mails or general questions on a daily basis. The Discussion Board will be read and graded three nights per week. Assignments will be read, graded, and returned to each student within two weeks after the due date.
Academic Policies for inclusion in all Syllabi

I - Academic Honesty

Intellectual honesty is the cornerstone of all academic and scholarly work. Therefore the University views any form of academic dishonesty as a serious matter and requires all instructors to report every case of academic dishonesty to the SPD Committee on Academic Standing, which keeps records of all cases. All work submitted or posted by students in this course must be their own. Submission of writing or ideas which are not the original work of the student (and not properly referenced) is considered plagiarism. Unintentional plagiarism is still plagiarism, so if you have any questions about the proper acknowledgement of sources, be sure to ask your instructor who can advise you about various electronic tools available to assist you in self-screening your work.

For detailed information, refer to SPD’s “Policies and Procedures Governing Academic Dishonesty” available at www.stonybrook.edu/spd/assets/pdf/dishonesty.pdf.

II - Stony Brook University Disability Support Services Statement

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services (631) 632-6748 or dss@stonybrook.edu or visit their website at Disability Support Services They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

On Campus Support

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: Evacuation Guide for People with Physical Disabilities

III - Critical Incident Management:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

IV - Course Content:

Course material accessed from Blackboard, SB Connect, SB Capture or a Stony Brook Course website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot be reused or distributed without written permission of the instructor and/or the copyright holder. Duplication of materials protected by copyright, without permission of the copyright holder is a violation of the Federal copyright law, as well as a violation of Stony Brook's Academic Integrity and Student Conduct Codes.
Class Schedule

Week 1:
Topics:

• How the Body Works
• Fitness for Sport and Physical Training
• Coach's Role in Physical Training
• Training Principles
  Assigned Reading: Martens, Ch. 13: Training Basics
• Energy and Energy Fitness
• Physiology of Energy Systems
• Energy Demands of Your Sport
• Measuring Energy Fitness
• Designing an Energy Fitness Training Program
  Assigned Reading: Martens, Ch. 14: Training for Energy Fitness

• Muscular Fitness Defined
• How Muscles Work
• Training for Muscular Fitness
• Muscular Demands of Your Sport
• Testing Muscular Fitness
• Designing a Muscular Fitness Program
  Assigned Reading: Martens, Ch. 15: Training for Muscular Fitness

Assignments Due: (not graded)
• Practice Assignment:
  ° Library Tutorial
  ° Student Information Sheet
• Practice Quiz
• E-mail Check
  ° Student Introductions on Discussion Board
  ° Presentation topics due

Week 2:
Topics:

• Sports Injury Definition, Classifications, Recognition, Epidemiology
• Classification of Sports
• Extent of Injuries in Sport
  Assigned Reading: Ch. 1: The Concept of Sports Injury

• The Sports Medicine Team
• The Practice of Athletic Training
  Assigned Reading: Ch. 2: The Athletic Health Care Team

• Causative Factors in Injury
• Intervention Strategies
• Injury Prevention and Preseason Conditioning
• Modification of Extrinsic Factors
  Assigned Reading: Ch. 4: Sports-Injury Prevention
  App. 3: Generic First Aid Kit for Sports Injuries
  App. 4: Equipment Fitting
Assignment Due:
- Quiz 1: Martens Chapters 13-15

Discussion Board Topic:
- How may coaches be proactive in the prevention of athletic injuries?

Week 3:
Topics:
- First-Aid Training
- Injury Evaluation Procedures
- Assessment of the Injured Athlete
- Physical Exam
- Returning to Play

Assigned Reading: Ch. 7: Emergency Plan and Initial Injury Evaluation
- Concussions

Assigned Reading: Ch. 9: Injuries to the Head, Neck, and Face (pp. 117-128, 134-136 only)
Guidelines for Concussion Management in the School Setting

Assignment Due:
- Quiz 2: Chapters 1, 2, & 4

Discussion Board Topic:
- What is the coach’s role in the handling of on-the-field athletic injuries and emergency situations, in particular the recognition and management of concussions?

Week 4:
Topics:
- The Concept of Tort
- Liability
- Good Samaritan Law
- Ethics of Sports-Injury Care
- Risk management
- Mixed competition

Assigned Reading: Ch. 3: The Law of Sports Injury

Assignment Due:
- Article 1: The prevention of athletic injuries

Discussion Board Topic:
- How may coaches protect themselves from liability while still providing what is best for student-athletes?

Week 5:
Topics:
- Essential Nutrients
- Nutritional Knowledge of Athletes and Coaches
- Special Considerations
- Educating Athletes
- General Dietary Guidelines for Athletes
- Supplements and Ergogenic Aids
- Nutrition and Injury Recovery

Assigned Reading: Ch. 6: Nutritional Considerations
App. 2: Weight Loss in Wrestlers
Assignment Due:
• *Quiz 3: Chapters 7, 9, & 3*

Discussion Board Topics:
• • *Athletic Injury Presentations:*
  • o Shoulder Dislocation
  • o ACL Tear (knee)
  • o Ankle Sprain

Week 6:
Topics:
• • Exertional Heat Illnesses
• • Cold-Related Health Problems
Assigned Reading: Ch. 18: Thermal Injuries
App. 1: NATA Position Statement: Exertional Heat Illnesses

Assignment Due:
• • *Article 2: The description, evaluation, and/or treatment of a specific injury*

Discussion Board Topics:
• • *Athletic Injury Presentations:*
  • o Concussion
  • o Groin Strain
  • o Medial Tibial Stress Syndrome (“Shin Splints”)

Week 7:
Topics:
• • Wounds
• • Other Skin Conditions
Assigned Reading: Ch. 17: Skin Conditions in Sports
App. 6: Bloodborne Pathogens

Assignment Due:
• • *Quiz 4: Chapters 6, 18, & 17*

Discussion Board Topics:
• • *Athletic Injury Presentations:*
  • o Ulnar Collateral Ligament Injury (elbow) (“Tommy John”)
  • o Lumbar Spine Injury (low back)
  • o Meniscus Tear (knee)

Week 8:
Topics:
• • The Physics and Mechanics of Sports Injury
• • The Physiology of Sports Injury
• • Pain and Acute Injury
• • Intervention Procedures
• • The Role of Exercise Rehabilitation
Assigned Reading: Ch. 8: The Injury Process

Assignment Due:
• • *Article 3: The rehabilitation of athletic injuries*

Discussion Board Topics:
• • *Athletic Injury Presentations:*
• Cervical Spine Injury (neck)
• Hip Labrum Tear
• Achilles Tendon Injury

Week 9:
Topics:
• Exercise and Infectious Disease
• Exercise-Induced Asthma
• The Athlete with Diabetes
• Epilepsy and Sports Participation

Assigned Reading: Ch. 19: Other Medical Concerns

• Youth Sports in America
• The Growing Athlete
• Injury Mechanisms in Youth
• Contributors to Injury
• Injury Imitators
• Strength Training for Youth
• Prevention of Youth Sports Injury

Assigned Reading: Ch. 20: The Adolescent Athlete: Special Medical Concerns

Assignment Due:
• Quiz 5: Chapters 8, 19, & 20

Discussion Board Topics:
• Athletic Injury Presentations:
  • Rotator Cuff Injury (shoulder)
  • Patellofemoral Pain Syndrome (knee)
  • Turf Toe

Week 10:
Topics:
• Personality Variables
• Psychosocial Variables
• Competitive Stress and the Adolescent
• Psychology of the Injured Athlete
• Eating Disorders

Assigned Reading: Ch. 5: The Psychology of Injury

Assignment Due:
• Quiz 6: Chapter 5

Discussion Board Topics:
• Athletic Injury Presentations:
  • Lateral Epicondylitis ("Tennis elbow")
  • Hamstring Strain
  • Plantar Fasciitis (foot)