



PE-110: PREVENTION AND CARE OF ATHLETIC INJURIES

Effective Term

Fall 2026

BOT Approval Date

10/09/2025

Discipline

PE - Physical Ed

Course Number

110

Course Title

Prevention and Care of Athletic Injuries

Short Title

Prevention/Care of Injuries

Credit Status (CB 04)

D - Credit - Degree applicable

Units**Lecture Units**

3.00

Total Units

3.00

Hours**Lecture Contact Hours**

48-54

Out of Class Hours Lecture

96-108

Total Contact Hours

48 - 54

Total Out of Class Hours

96 - 108

Total Student Learning Hours

144 - 162

Distance Education

Yes

Distance Education**Distance Education Type**

Both Fully Online and Hybrid Online

Fully Online Delivery Requirements:

- a. Students must be notified via the college schedule of classes and the syllabus for the class if proctored tests are required for this course
- b. Any planned face-to-face meetings, such as an orientation or study session, must be optional

c. The MSJC curriculum committee requires the use of accessible, asynchronous discussion as a component of every fully online course

Are you using publisher content?

No

Regular Substantive Interaction

Instructor-to-student, student-to-student, and student-to-content contact shall be distributed in a manner that will ensure regular substantive interaction (RSI) is maintained not only weekly but also for the duration of the course. Instructor interactions should be equivalent in time, quality and consistency to the engagement students would receive in a face-to-face course—for example, through announcements, discussion participation, personalized feedback, video messages, or other instructional communications. Instructors are expected to be responsive to student inquiries within a 24-72 hour time frame excluding holidays. RSI will be maintained through a variety of methods:

- Orientation - Students must be oriented to the online and face-to-face portions at the start of the course.
- Announcements - Announcements using the course management system must be posted at least weekly to keep students current on course events, due dates, materials, etc.
- Discussion Forums - Content-related discussion forums within the designated CMS will include appropriate instructor participation and will be initiated and maintained, with timely feedback provided. Instructors are required to monitor the discussions and related activities to provide guidance and direction. Open-ended discussion boards may be used to further learning and interaction.
- MSJC Communication – Instructor will use MSJC-administered communication tools (such as email or the designated CMS communication tools) to regularly communicate with and provide ease of access to students.
- Timely Feedback - Timely feedback on student work will be provided by the instructor, which may include comments and/or rubrics, within the Grades area of the designated CMS.
- Scheduled Meetings – Hybrid and synchronous courses will meet at regularly scheduled times.

ADA Compliance - All course interactions and content must be designed with accessibility in mind and meet ADA requirements.

Catalog Description

This course introduces the Athletic Training profession and the methods and techniques for the prevention and treatment of sports-related injuries through the study of human anatomy and function with particular respect to muscle and joint anatomy, bio-mechanics, exercise physiology and the care of sports-related injuries. This course focuses on injury prevention, evaluation, management, and rehabilitation, as well as professional development.

Codes

TOP Code (CB 03)

1228.00* - *Athletic Training and Sports Medicine

CIP Code

51.0913 - Athletic Training/Trainer.

Repeatability Code

No

Grading Option

Letter grade OR P/NP

Minimum Qualifications

Minimum Qualifications	And/Or
Kinesiology (Masters Required)	Or
Physical Education (Masters Required)	End

GE Information

Check GE Types Requested

AA/AS E - Lifelong Learning and Self-Development

Learning Objectives

Learning Objectives

Learning Objective
1. Implement, athletic, sports-related injury prevention strategies and formulate risk management procedures to minimize injury.
2. Recognize, evaluate and assess specific athletic, sports-related injuries.
3. Formulate and administer immediate care plans for athletic injuries.
4. Compare and contrast rehabilitation and reconditioning protocols for athletic, sports-related injuries and choose the most appropriate treatment plan.
5. Examine organizational and administrative techniques to effectively manage an athletic training facility.
6. Investigate and evaluate employment settings and certification requirements as they relate to professional development and responsibility.
7. Analyze and apply evidence-based injury prevention strategies that address the unique physiological, cultural, and socio-environmental factors influencing athletic injury risk among diverse populations, including considerations of age, gender, race/ethnicity, socioeconomic status, and disability.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome
1. Students will demonstrate the correct steps in treating specific athletic injuries.
2. Students will evaluate the mechanism of injury for several sport related injuries.
3. Students will apply anatomical knowledge to biomechanical movements and assess athletic performance to design effective training drills.
4. Students will match musculoskeletal anatomy to the major human biomechanical movements.
5. Students will demonstrate safety, injury prevention, evaluate injuries, and be prepared to handle emergency situations.

Content

Course Lecture Content

1. Introduction to Sports Medicine and Injury Prevention
 - a. Role of athletic trainers, sports medicine professionals, and other healthcare providers
 - b. Basic anatomy and physiology relevant to athletic injuries
 - c. Anatomical and physiological differences affecting injury risk. Impact of age, gender, ethnicity, and socioeconomic status on injury risk
2. Overview of injury prevention strategies
 - a. Introduction to risk factors (e.g., age, gender, environment, training loads)
 - b. Biomechanics of Injury
 - c. Mechanisms of injury: intrinsic vs. extrinsic factors
3. Common injury types (acute vs. chronic)
 - a. Common causes of athletic injuries: excessive force, poor technique, fatigue, environmental factors
 - b. Impact of biomechanics on injury occurrence
 - c. Injury prevention through correct technique and equipment
4. Injury Assessment and Evaluation
 - a. Primary and secondary surveys in injury assessment
 - b. History-taking techniques
 - c. Observation and palpation
 - d. Functional testing and special tests for specific injuries
5. First Aid and Emergency Care
 - a. Principles of first aid and emergency response
 - b. Initial assessment of life-threatening conditions (e.g., spinal injuries, severe head trauma)
 - c. Management of acute injuries (sprains, strains, fractures, dislocations, concussions)
 - d. Management of chronic injuries (tendonitis, bursitis, stress fracture)
 - e. Protocol for concussions, diagnosis, management and return-to-play decisions

- f. CPR, AED, and choking management
 - g. Controlling bleeding and preventing shock
 - h. Legal aspects of emergency care and consent
- 6. Common Soft Tissue Injuries
 - a. Sprains, strains, contusions, and tendon injuries
 - b. Inflammation and the healing process
 - c. Modalities for managing soft tissue injuries (R.I.C.E., compression, elevation, heat/ice therapy)
- 7. Bone and Joint Injuries
 - a. Fractures, dislocations, and subluxations
 - b. Assessment and management techniques for bone injuries
 - c. Joint stability and rehabilitation post-injury
- 8. Overuse Injuries and Chronic Conditions
 - a. Causes and prevention of overuse injuries
 - b. Common chronic conditions in athletes (e.g., tendonitis, stress fractures, shin splints)
 - c. Rehabilitation of chronic injuries and managing long-term recovery
- 9. Return-to-Play Decisions and Rehabilitation
 - a. Principles of rehabilitation and the role of strength and conditioning
 - b. Gradual return-to-play strategies and criteria (strength, range of motion, pain-free movements)
 - c. Gradual reintegration into sports: controlled drills, non-contact practices, and full contact
 - d. Psychological considerations during recovery
- 10. Injury Prevention in Special Populations
 - a. Injury prevention in youth athletes, female athletes, and older athletes
 - b. Cultural factors influencing injury reporting and treatment.
 - c. Examination of how age, gender, race/ethnicity, socioeconomic status, and disability affect injury patterns and access to care.
 - d. Health disparities and barriers to injury prevention and treatment in underrepresented populations.
 - e. Ethnicity and injury risk: Anatomical and Physiological Differences Related to Injury Risk.
 - f. Gender and injury risk: Hormonal influences on ligamentous laxity and injury timing.
 - g.
- 11. Environmental considerations (heat illness, cold stress, altitude)
- 12. Protective equipment and its role in injury prevention
- 13. Warm-up, cool down, flexibility and mobility training
- 14. Sport-specific conditioning and techniques
- 15. Nutrition and Supplements in Injury Prevention and Recovery
 - a. Role of rest and nutrition in preventing injuries
 - b. Nutritional needs for injury prevention and healing
 - c. Role of hydration and electrolytes
 - d. Ethical considerations in the use of supplements
- 16. Psychological Aspects of Injury and Rehabilitation
 - a. Psychological impact of injury on athletes
 - b. Coping mechanisms and mental skills training
 - c. Role of sports psychology in rehabilitation
- 17. Ethical and Legal Considerations in Sports Medicine
 - a. Scope of practice for athletic trainers and sports medicine professionals
 - b. Legal responsibilities and liability in injury care
 - c. Ethical dilemmas in sports medicine (e.g., return-to-play decisions)
- 18. Contemporary Issues in Sports Injury Prevention and Care
 - a. Advances in technology for injury prevention and treatment (e.g., wearable devices, advanced imaging)
 - b. Case studies of current trends in sports injury management
 - c. Professional development in sports medicine

Methods of Instruction

Method

Discussion

Integration

Group discussion and participation reflecting the correct protocols and techniques in on-field, sports-related emergency situations.

DE Adaptations for MOI

Weekly discussion board forums will be used to explore key injury prevention topics such as proper use of protective gear, emergency protocols, bloodborne pathogen precautions, and injury rehabilitation strategies. Students will engage with one another by sharing insights, responding to case-based prompts, and reflecting on best practices. The instructor will actively moderate discussions, provide clarification, and offer feedback to support deeper understanding of course concepts. All prompts will be accessible in the CMS.

Method

Film/video Viewing and Discussion

Integration

Film and video presentations illustrating specific content incorporating the following objectives with discussions: injury prevention, injury evaluation & assessment, immediate care of injury, injury rehabilitation, health care organization and professional development. This will include the cultural and socio-environmental factors influencing athletic injury risk among diverse populations, including considerations of age, gender, race/ethnicity, socioeconomic status, and disability.

DE Adaptations for MOI

View videos showing sports related injuries and techniques for preventing/minimizing sports related injuries. Participate in discussion boards reflecting on sports-related injury prevention strategies and risk management procedures. Closed captioning will be provided for all videos. All prompts will be accessible in the CMS.

Method

Lecture

Integration

Theoretical lectures through PowerPoint media incorporating the following objectives: injury prevention, injury evaluation & assessment, immediate care of injury, injury rehabilitation, health care organization and professional development.

DE Adaptations for MOI

E-lectures, demonstrations, and power point presentations will be used to incorporate the following objectives: Organizing and establishing an effective athletic health care system, techniques for preventing and minimizing sport-related injuries, recognition and management of specific injuries and conditions, and professional development and responsibility. Closed captioning will be provided for all videos. All prompts will be accessible in the CMS.

Method

Mediated Learning

Integration

Utilize scientific methodology: a. Observational description of injured tissues, injury mechanisms, courses of treatment & therapy, etc. b. Performance of clinical assessment and evaluation techniques to differentiate between involved and non-involved structures. c. Construct hypotheses of mechanisms of injury and injured structure(s) based on experimental testing. d. Conclude and verify hypotheses given results of accumulated diagnostic information.

DE Adaptations for MOI

Watching videos of athletic injuries, practical observations will be used to assess mechanism/cause of injury. Description of possible injuries will be considered. Performance and practice of clinical evaluations and special tests will be completed. Closed captioning will be provided for all videos. All prompts will be accessible in the CMS.

Method

Observation and Demonstration

Integration

Live demonstration of clinical skills and proficiencies relating to injury prevention, evaluation, care and rehabilitation.

DE Adaptations for MOI

Observations and demonstrations will be used to teach sports related injuries and techniques for preventing/minimizing sports related injuries. Students will observe instructional videos with research based injury prevention methods and techniques. During the in class sessions students will demonstrate different hands on activities where they will implement the correct techniques for the management specific injuries and conditions. Closed captioning will be provided for all videos. All prompts will be accessible in the CMS.

Methods of Evaluation**Method**

Class Performance

Integration

Individual clinical performance tests to evaluate the student's correct injury prevention, evaluation, immediate care and rehabilitation skills for specific injuries. Oral exams to include performance of required skill proficiencies.

DE Adaptations for MOE

Individual clinical performance test to evaluate the student's correct injury prevention, evaluate, immediate care and rehabilitation skills for specific injuries. Oral exams based evaluated by specific rubrics will take place during the meeting times.

Method

Exams/Tests

Integration

Written examinations to determine the student's understanding of athletic training, sports medicine and athletic injury concepts. Exams to include multiple choice, short answer, fill-in-the-blank, matching, true/false.

DE Adaptations for MOE

Chapter exams and the final exam will be posted on CMS, evaluating and understanding of both online powerpoint lectures and textbook principles. Students will be evaluated from test and quizzes that are auto-graded.

Method

Group Projects

Integration

Small group on-site performance tests to assess the entire group's ability to effectively, correctly and safely manage an emergency situation as a whole.

DE Adaptations for MOE

Small group on-site performance test to assess the entire group's ability to effectively, correctly, and safely manage an emergency situation as a whole. The performance test will be submitted during the site meeting that will be evaluated on the completeness of its contents based on rubrics.

Method

Research Projects

Integration

Research project to evaluate the student's ability to independently assess the unique risk factors for injury in underrepresented and/or those from diverse backgrounds.

DE Adaptations for MOE

Assigned or selected case studies involving an athlete from an underrepresented or diverse background. Assess risk factors, design a prevention plan, and reflect on how DEI impacts access to quality sports medicine care and resources.

Method

Projects

Integration

Projects to determine a student's skill in developing a comprehensive athletic training budget and/or an original athletic training room design.

DE Adaptations for MOE

Select, create and develop a written presentation on a completed athletic training budget and/or an original athletic training room design. This project will be submitted through the CMS and will be evaluated with a rubric.

Assignments**Assignment Type**

Writing

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

Mechanism of Injury Breakdown Report. Objective: Develop a foundational understanding of how common athletic injuries occur.

Instructions: Choose one common athletic injury (e.g., ACL tear, rotator cuff strain, ankle sprain) and write a 2–3 page report that includes the following: The anatomy involved, the mechanism of injury, the risk factors, the prevention strategies, and examples of how this injury might present in different sports or athlete populations.

Readings: "Anterior cruciate ligament injury: mechanisms of injury and strategies for injury prevention." — British Journal of Sports Medicine, 2014.

"Rotator Cuff Injury: Pathogenesis, Biomechanics, and Repair." (2024) — Journal of Orthopaedic & Sports Medicine.

"Sport-Specific Injury Mechanisms and Situational Patterns of ACL Injuries: A Comprehensive Systematic Review." Sports Medicine (2025).

"Sex Differences in Anatomic Features Linked to Anterior Cruciate Ligament Injuries During Skeletal Growth and Maturation" — Hosseinzadeh & Kiapour (2020).

"Gender differences in the impact of anatomical factors on non-contact anterior cruciate ligament injuries: a magnetic resonance study" — BMC Musculoskeletal Disorders, 2024.

How assignment will be adapted in online format

This assignment is easily adapted to the online format as it is an assignment that can be completed anytime and submitted and evaluated through the online course management system.

Assignment Type

Writing

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

Emergency Action Plan Simulation

Objective: To practice assessing and responding to emergency injury situations.

Instructions: Design an Emergency Action Plan (EAP) for a specific sport and setting (e.g., high school football field, college gym). This plan must include chain of command considerations, roles of personnel, emergency contact procedures, Venue-specific considerations, and cultural/linguistic factors.

Readings: "National Athletic Trainers' Association Position Statement: Emergency Planning in Athletics"

Journal of Athletic Training, 2002

"Building an Emergency Action Plan for Athletes"

LSU Online, 2023

"Development and Implementation of an Emergency Action Plan in Football"

Journal of Athletic Training, 2023

How assignment will be adapted in online format

This assignment is adapted to the online format as it is an assignment that can be completed anytime and submitted and evaluated through the online course management system.

Assignment Type

Reading

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

Injury Prevention Case Study in Diverse Populations

Objective: To examine how injury prevention differs across diverse populations.

Instructions: Use readings chosen from the following sources: SPORTDiscus (Available through most university libraries using EBSCO) or PubMed / MEDLINE (Freely accessible at pubmed.ncbi.nlm.nih.gov) or CINAHL (Available through EBSCOhost via college libraries). Students will choose a population (e.g., LGBTQ+ athletes, female, youth athletes in underserved communities, adaptive sports athletes, etc.) and explore: Injury risks specific to that population, barriers to care or resources, culturally competent prevention strategies, a proposed intervention or policy change.

How assignment will be adapted in online format

This assignment is adapted to the online format as it is an assignment that can be completed anytime and submitted and evaluated through the online course management system.

Assignment Type

Other

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

Taping and Bracing Lab Practicum

Objective: To assess hands-on injury prevention techniques.

Instructions: Demonstrate proper taping, wrapping, and bracing techniques for various joints (ankle, wrist, thumb, knee). Practice proper technique, accuracy, patient communication, and hygiene/safety.

How assignment will be adapted in online format

This assignment is adapted to the online format as it is an assignment that can be completed by video recording anytime and submitted and evaluated through the online course management system.

Assignment Type

Writing

In-class and/or outside of class

In-class

Formative or Summative

Summative

Assignment

Injury Prevention Program Design

Objective: To synthesize course concepts into a practical prevention plan.

Instructions: Design a comprehensive injury prevention program for a sport/team of their choice, including but not limited to: Preseason screening, conditioning protocols, nutrition and recovery strategies, access/representation/inclusive policies, and athlete education and compliance tracking.

Readings: "Effect of Injury Prevention Programs on Lower Extremity Performance in Youth Athletes: A Systematic Review"

Journal of Science and Medicine in Sport, 2019

"Perceived Barriers to Implementation of Injury Prevention Programs Among Collegiate Women's Soccer Coaches"

Journal of Science and Medicine in Sport, 2020

"Systematic Development of an Injury and Illness Prevention Programme for Athletes with a Physical Impairment: The TIPAS Study"

International Journal of Environmental Research and Public Health, 2023

How assignment will be adapted in online format

This assignment is adapted to the online format as it is an assignment that can be completed anytime and submitted and evaluated through the online course management system.

Course Materials**Textbooks**

Prentice, William E. (2023). Essentials of Athletic Injury Management 12th edition (7th/e). McGraw-Hill. ISBN: 9780078022753

Prentice, William E. (2014). Rehabilitation Techniques for Sports Medicine and Athletic Training with Laboratory Manual and eSims Password Card 6th edition (4th/e). Prentice Hall. ISBN: 9780071119290

Starkey, Chad PhD AT FNATA, Brown Sara D. MS LAT ATC (2015). Examination of Orthopedic and Athletic Injuries 3rd edition (2nd/e). F. A. Davis. ISBN: 9780803639188

William Prentice (2017). Principles of Athletic Training: A Guide to Evidence-Based Clinical Practice McGraw Hill. ISBN: 0078022649

Michelle Clery & Katie Flanagan (2019). Acute and Emergency Care in Athletic Training Human Kinetics. ISBN: 9781492545736

Class Size Information**Class Size**

40

Class Size Category

A - Lecture/discussion 40

Diversity and Inclusion

Course Design and Materials: Course will incorporate diverse perspectives, authors, and examples that reflect a variety of cultures, identities, and lived experiences. Instructional materials will be reviewed regularly to ensure representation, inclusivity, and alignment with equity-minded practices across disciplines.

Inclusive Learning Environment: Instructors will establish classroom norms and policies that promote respect, civil discourse, and belonging in both online and face-to-face classes. Clear expectations for communication and engagement will support a learning space where all students feel valued and heard.

Accessible Instruction: Course content will be delivered using accessible design. Materials will follow accessibility guidelines within the CMS, including captioned media, readable document formats, and multiple means of engagement to support diverse learning.

Equitable Teaching Practices: Instructors will use transparent and grading criteria, varied assessment methods, and timely feedback to promote fairness and student success. Opportunities for revision, reflection, and multiple demonstrations of learning may be incorporated when appropriate to the discipline.

Culturally Responsive Pedagogies: Instructional strategies will encourage critical thinking about diverse perspectives and systems of power relevant to the course content. Faculty will foster opportunities for students to connect course material to real-world contexts.

Ongoing Reflection and Improvement: Faculty will engage in continuous professional development related to IDEAA principles and reflect on course practices using metacognition to identify opportunities for increased equity, inclusion, and accessibility.

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

Infusing diversity and inclusion into this course on the prevention and care of athletic injuries involves content that acknowledges and addresses the varied experiences, backgrounds, and identities of students, athletes, and practitioners. Topics will be presented to illustrate gender-specific injury risks (e.g., ACL injuries in women) and addressing care for non-binary and LGBTQ+ athletes, recognizing the need for inclusive language and sensitive practices in treatment. In addition, the course will include information as to how cultural factors influence an athlete's care and treatment preferences i.e., some athletes may prefer non-Western treatments, or there may be dietary or religious considerations when managing injury recovery.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

The course content will include injury prevention and treatments for athletes from different racial, ethnic, gender, and socio-economic backgrounds. This will include information regarding gender-specific injury risks (e.g., ACL injuries in women) and addressing care for non-binary and LGBTQ+ athletes. The course will ensure that course instruction reflects how cultural factors influence an athlete's care and treatment preferences. Instruction, and evaluation will recognize the need for inclusive language and sensitive practices in treatment. i.e., some athletes may prefer non-Western treatments, or there may be dietary or religious considerations when managing injury recovery. The instructor will encourage students to use language that is respectful and inclusive of all genders, abilities, races, and ethnicities. Educational materials will be presented in multiple formats to ensure accessibility for students with disabilities, making sure all students can engage with the course content fully.

Interactions

Explain how the course will incorporate student-to-student interaction.

During discussions, students will be given real-world scenarios or case studies of athletic injuries. They would research, discuss, and present their findings and treatment options to the class, fostering teamwork and knowledge-sharing. After performing practical exercises, students can provide feedback to one another, helping each other improve their performance in real-time. Students will role-play scenarios where they must respond to an athlete's injury. This could involve triaging the situation, communicating with the injured person, and deciding on the best course of action.

Explain how the course will incorporate instructor-to-student interaction.

Instructor-to-student interaction will take place by weekly announcements and updates, email (Canvas Inbox), grading with feedback, participation in discussion forums, and office hours.

Instructor to student interaction will take place with feedback of every assignment and interaction/moderation of the class discussions. In addition, a portion of each class will include open Q&A forum where students can ask questions regarding lecture content, course readings, or practical skills. Also, during practical exams where students demonstrate their injury prevention and care skills, the instructor will offer real-time feedback during the process.

Explain how the course will incorporate student-to-content interaction.

Student to content interaction will take place with chapter readings and instructor lecture. In addition, there will be videos, animations, and graphics to explain complex concepts. Students will relate course content to real-life examples and case studies. Students will actively engage with the course content by practicing skills like injury assessment, first-aid techniques, or taping.

Explain how the course will incorporate student-to-self interaction (metacognitive).

In regard to student to self-interaction, prompts will be given for discussion that encourages students to reflect on their personal development in relation to prevention and care of athletic injuries. Students will assess their own competence in key areas of injury prevention and care, such as recognizing symptoms of common injuries, performing rehabilitation exercises, or using proper equipment. Students will be encouraged to track their own progress, noting areas where they feel confident and areas that need improvement.