01. Introduction to Sports Medicine & Athletic Training

Content Area:	Science
Course(s):	
Time Period:	Marking Period
Length:	Three weeks
Status:	Published

General Overview, Course Description or Course Philosophy

In this semester long course, students will gain insight into the field of sports medicine and athletic training as an up and coming profession. Students will explore how physical exercise can produce many favorable changes in some anatomical structures and enhance many physiological functions. Students enrolled in this course will receive an understanding of the multidisciplinary approach to patient assessment, treatment, and care. Students will obtain an overview of the basics of exercise physiology including prevention, management, treatment and rehabilitation of athletic injuries. This course is strongly recommended for students interested in pursuing careers in medicine, sports training, kinesiology, or other health related fields.

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

It is assumed that any student accepted into Sports Medicine and Athletic Training course has successfully completed Honors Biology or Biology CP. The NGSS is the foundation for the course. Therefore, this course of study will address and go beyond those knowledge and skill standards that reflect greater critical thinking.

Enable students to understand and relate concepts in the field of medicine to their own lives.

Foster a strong environment of teamwork and cooperation in finding answers to problems related to this course of study.

Continue to develop the understanding and appreciation of the limitations of the scientific analysis and research.

Enable the student to continue to develop writing skills that emphasize accuracy and clarity.

Enable the student to develop skills in decision-making based on an understanding of the basic principles of laboratory research.

Enable students to use their particular learning style to understand the principles of Sports Medicine.

Examination of how people of various cultures have contributed to the advancement of science and technology, and how major discoveries and events have advanced science and technology.

Examine communication lines between the athletic trainer, athletes, coaches and parents in dealing with athletic injuries.

Examine and relate concepts in the field of medicine to their own lives.

• Foster a strong environment of teamwork and cooperation in finding answers to problems related to this course of study.

CONTENT AREA STANDARDS

VHEL.9-12.9.4.12.H.(1).1	Explain planned procedures and goals to patients/clients and use a range of response strategies to address patient/client questions and concerns.
VHEL.9-12.9.4.12.H.(1).5	Demonstrate knowledge of the protocols for using patient/client health status information within scope of practice to document, evaluate, and adapt treatment plans.
VHEL.9-12.9.4.12.H.1	Demonstrate language arts knowledge and skills required to pursue the full range of postsecondary education and career opportunities.
VHEL.9-12.9.4.12.H.8	Evaluate and use information resources to accomplish specific occupational tasks.
VHEL.9-12.9.4.12.H.9	Use correct grammar, punctuation, and terminology to write and edit documents.

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

CAEP.9.2.12.C.2	Modify Personalized Student Learning Plans to support declared career goals.
CAEP.9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of
	world languages and diverse cultures.

STUDENT LEARNING TARGETS

- 1. Recall information on the various careers offered in the field of Sports Medicine.
- 2. Recognize an overview of the basics of exercise physiology including the prevention, management, treatment and rehabilitation of athletic injuries.
- 3. Recall basic anatomy, physiology and kinesiology concerning athletic injuries.
- 4. Expose students to the working environment and need for strong communication lines between the athletic trainer, athletes, coaches and parents in dealing with athletic injuries.
- 5. Execute research in the area of medical science.
- 6. Relate concepts in the field of medicine to their own lives.

Declarative Knowledge

Students will understand:

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- 1. there are various careers offered in the field of Sports Medicine.
- 2. the overview of the basics of exercise physiology including the prevention, management, treatment and rehabilitation of athletic injuries.
- 3. the basic anatomy, physiology and kinesiology concerning athletic injuries.
- 4. the working environment and need for strong communication lines between the athletic trainer, athletes, coaches and parents in dealing with athletic injuries
- 5. Problem-solving, decision-making and inquiry skills, reflected by formulating usable questions and hypotheses, planning experiments, conducting systematic observations, interpreting and analyzing data, drawing conclusions, and communicating results.

Procedural Knowledge

Students will be able to:

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- 1. Extend their research skills in the area of science.
- 2. Relate concepts in the field of medicine to their own lives.
- 3. Foster a strong environment of teamwork and cooperation in finding answers to problems related to this course of study.
- 4. Continue to develop the understanding and appreciation of the limitations of the scientific analysis and research
- 5. Develop enhanced writing skills that emphasize accuracy and clarity using APA format.

EVIDENCE OF LEARNING

Formative Assessments

□ Help students track their individual progress toward the learning target (i.e. charts, graphs, data notebooks,

etc.)

□ Ask students to explain their progress toward the learning target

□ Ask students to provide evidence of their progress toward the learning target

□ Facilitate individual conferences regarding use of data to track progress

□ Use formative measures to chart individual and/or class progress towards learning targets using a performance scale

□ Use formative assessment that reflects awareness of cultural differences represented in the classroom

Summative Assessments

- Benchmarks departmental benchmark given at the end of MP1, MP2, or MP3 & MP4 (Semester Based Course)
- Alternative Assessments
 - Lab inquiries and investigations
 - Lab Practicals
 - Exploratory activities based on phenomenon
 - Gallery walks of student work
 - Creative Extension Projects
 - Build a model of a proposed solution
 - Let students design their own flashcards to test each other
 - Keynote presentations made by students on a topic
 - Portfolio

RESOURCES (Instructional, Supplemental, Intervention Materials)

France, Robert, C. Introduction to Sports Medicine and Athletic Training: Third Edition, Delmar Cengage Learning, Clifton Park, New York, 2011.

France, Robert, C. Workbook to Accompany: Introduction to Sports Medicine and Athletic Training: Second Edition, Delmar Cengage Learning, Clifton Park, New York, 2011.

TI-83+ graphing calculators, Vernier LabPro Technology, and Vernier Graphical Analysis software.

Journal of Sports Medicine App.

INTERDISCIPLINARY CONNECTIONS

	Video case studies		
	Audio/visual media analysis		
Tashnalagy/Multimadia	Researching based writing		
Technology/Multimedia	Google		
	Media Literacy		
	Educational tech applications		
	Speech/debate		
	Narrative Writing		
English/Language Arts	Information Writing		
English/Language Arts	Inplementation of conventions		
	of Standard English		
	Language Aquisition		
	Data collection/analysis		
	Computations		
	Statistics		
	Financial/Economic/Business/Entrepenerial		
	Literacy		
Math			
l			
	Integrate quantitative or		
	technical information		
Science & Health	expressed in words in a text.		
	Distinguish among facts,		
	reasoned judgment based on		
	speculation in a text		
	Compare and contrast the		
	information gained from		
	experiments, simulations,		
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	video, or multimedia sources
l	with that gained from reading a
l	text on the same topic.
l	Experimentation
l	Social Emotional Learning
l	Geoscience
	Sustainability

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.

Differentiation/Accommodations/Modifications						
Gifted and Talented	English Language Learners	Students with Disabilities	Students at Risk of School Failure			
Extension Activities	Modifications for Classroom	(appropriate accommodations, instructional	Modifications for Classroom			
• Allow students to pursue	• Pair visual prompts with verbal	modifications as determined by the IEP or 504 teams)	• Pair visual prompts with verbal presentations			
independent projects based on their	 Repetition and practice 	Modifications for	• Ask students to restate information, directions, and assignments.			
individual interests	• Model to be mastered	Classroom	Repetition and practiceModel to be mastered			
Provide enrichment activities that include more advanced	Modifications for Homework/Assignments	 Pair visual prompts with verbal presentations Ask students to 	 Extended time to complete classwork Provide a copy of class notes 			
 Allow team- teaching opportunitie Native Language Translation (peer, online assistive technology, translation device, hiling yeal dictioner 	restate information, directions, and assignments.	• Preferential seating to be mutually determined by the student and teacher				
s and collaboratio n	 Extended time for assignment 	Repetition and practice	• A student may request to use a computer to complete assignments			
• Set individual	completion as needed	• Model skills/techniques to be	• Establish expectations for correct spelling on			

goals

- Conduct research and provide a presentation of appropriate topics.
- Design surveys to generate and analyze data to be used in a discussion.
- Use of Higher Level Questioning Techniques
- Provide assessments at a higher level of thinking

- Highlight key vocabulary
- Use graphic organizers

Beginners:

- Use graphic models and visual examples to connect important ideas
- Pair graphic representations with content vocabulary – math journals, vocabulary cards, and more
- Utilize manipulatives – pattern blocks, paper money, tangrams, etc. Use manipulatives to help students make connections between concrete and abstract concepts
- Use pictures or visuals wherever possible
- Cue students before asking a questions during class discussions
- Help students with background vocabulary
- Use graphic organizer
- Modify the length of

mastered.

- Extended time to complete classwork
- Provide a copy of class notes
- Preferential seating to be mutually determined by the student and teacher
- A student may request to use a computer to complete assignments.
- Establish expectations for correct spelling on assignments.
- Extra textbooks for home. A student may request books on tape / CD / digital media, as available and appropriate.
- Assign a peer helper in the class setting
- Provide oral reminders and check student work during independent work time
- Assist student with long and short term planning of

assignment

• Extra textbooks for home

Build Students' Strengths and Multiple Intelligences

- Verbal Linguistic
- Logical reasoning
- Musical/ Rhythmic
- Intrapersonal Intelligence
- Visual Spatial Intelligence
- Interpersonal Intelligence
- Bodily Kinesthetic accommodations/modifica tion sent may request books on tape / CD / digital media, as available and appropriate.
- Assign a peer helper in the class setting
- Provide oral reminders and check student work during independent work time
- Assist student with long and short term planning of assignments
- Encourage student to proofread assignments and tests
- Provide regular parent/ school communication
- Teachers will check/sign student agenda daily
- Student requires use of other assistive technology device

reading passages, with extended time to complete them

- Minimize homework to essential content and learning
- Assign simplified homework with extended time to complete it
- Simplify assessments:
 - \circ true/false
 - Multiple choice (only two choices)
 - o Matching
 - decreased number of questions
- Use of a bilingual dictionary
- Focus on recognition work (listening, reading), rather than productive work (speaking and writing)

Intermediate:

- Use pictures or visuals wherever possible
- Cue students before asking a questions during class discussions
- Oral and written

assignments

- Encourage student to proofread assignments and tests
- Provide regular parent/ school communication
- Teachers will check/sign student agenda daily
- Student requires use of other assistive technology device

Modifications for Homework and Assignments

- Extended time to complete assignments
- Student requires more complex assignments to be broken up and explained in smaller units, with work to be submitted in phases
- Provide the student with clearly stated (written) expectations and grading criteria for assignments

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Modifications for Assessments

- Extended time on classroom tests and quizzes Student may take/complete tests in an alternate setting as needed
- Restate, reread, and clarify directions/questions
- Distribute study guide for classroom tests
- Establish procedures for accommodations / modifications for assessments

production expanded

- Focus on main/core vocabulary only
- Help students understand contextual terms
- Extended time for assessments
- to the types / modes of communication (role, audience, format, topic).

• Implement

RAFT activities

as they pertain

Modifications for Assessments

- Provide an outline of class notes so that students can focus on class discussion
- Ask students to rephrase key ideas in their own words
- Check comprehension of directions by asking students to restate the information
- Extended time on classroom tests and quizzes Student may take/complete tests in an alternate setting as needed
- Restate, reread, and clarify directions/questi ons
- Distribute study guide for classroom tests
- Establish procedures for accommodation s / modifications for assessments