



Sports Science - Course Syllabus (.5 Credit)

Description:

This introductory course offers the student an opportunity to learn the technical and practical aspects of the field of Sports Science. This course includes career exploration, as well as the role physics, biomechanics, and physiology play in sports. Specific sports covered, are: automobile racing, gymnastics, golf, figure skating, soccer, swimming, tennis, track and field, football, baseball, volleyball, basketball, cycling, and boxing.

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Course objectives:

Throughout the course, you will meet the following goals:

- Describe the role basic physics concepts play in various sports.
- Explain the role sports scientists play in the development of sports safety and nutrition.
- Describe the role basic biomechanics concepts play in various sports.
- Explain the variety of methods sports scientists use to study human movement in sports.
- Describe how Newton’s Laws of Motion are applied in Sports Science.
- Discuss how basic physiology concepts are applied in sports.
- Describe intensive training regimens and their importance to athletes’ success.
- Explain the role of the neuromuscular system in athletes.

Contents:

Module 1: Physics in Sports – Part 1
Module 2: Physics in Sports – Part 2
Module 3: Physics in Sports – Part 3
Module 4: Biomechanics in Sports – Part 1
Module 5: Biomechanics in Sports – Part 2
Module 6: Biomechanics in Sports – Part 3
Module 7: Physiology in Sports – Part 1
Module 8: Physiology in Sports – Part 2
Module 9: Physiology in Sports – Part 3

Grading Scale

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = under 59%

Grade Weighting

Quizzes..... 70%
Final Exam..... 30%
100%