

Soccer injury biomechanics

Semester 1

Learning outcomes

Students will be able:

1. To understand the methods of analysing soccer injury mechanisms
2. To plan and perform a biomechanical motion recording
3. To analyse and present a small-scale experiment
4. To incorporate the results of a biomechanical analysis into their training practice

Content

1. Introduction
2. Vertical jump ability assessment protocols
3. Force plate analysis laboratory
4. Landings
5. Change of direction
6. Strength and core muscle evaluation laboratory
7. Muscle strength
8. Core muscle theory
9. Electromyography
10. Muscle architecture
11. Injury kinematics
12. Practice at a professional soccer club
13. Practice at a professional soccer club

Assessment

Assessment includes a) Written team project (50%) and written exams at the end of the semester (50%)

Bibliography/journals

Journal of Biomechanics

Postgraduate Degree in Soccer Training and Injury Prevention

Sports Biomechanics

Science and Football

Sports

American Journal of Sports Medicine

British Journal of Sports Medicine

Medicine and Science in Sports and Exercise

Journal of Sport Sciences