KIN 335 BIOMECHANICS
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Course Instructor: Dr. Rick Hinrichs

Lab Instructors:
Mr. Mostafa Afifi
Ms. Jamie Henderson
INTRODUCTION

What is biomechanics?

Definition:
Study of the forces that act on the human body and the effects these forces have on the body.

“Bio:” _____________________________

“Mechanics:” _______________________
_______________________________

Why study biomechanics?

From a mechanical perspective...

How do we generate and control movements?

What are the physical and anatomical limitations or restrictions that we must deal with?

How can we improve our movements?
Improving our movements...

- Health and well being: Protection from injury

  e.g., footwear - running shoes

  sports equipment - landing mats, protective padding, braces/taping

  ergonomics - workplace assessments (lifting techniques, keyboard designs, etc.)
- Optimization of movement
  
e.g., rehabilitation - rehab exercise safety and efficacy

orthopedics - surgical approaches/ effectiveness, brace design

exercise and sport - sprint starts, swimming strokes, strength training equipment
Mechanics Overview:

Mechanics
Forms of Motion