

Intro to exercise science notes

[Sport & Tourism](#), [Fitness](#)



Movement of the body Adaptations to movement How has EXECS evolved?
Role of Pays DEHarvardFatigue Laboratory Krause-Weber test results
Professional associations American College of Sports Medicine (CACM)
Developed as a " unique blend of physicaleducation, medicine, and
physiology" Provides significant public outreach Works to shape public policy
Disseminates scholarly research Broad-based coursework Anatomy and
physiology Biological sciences Chemistry and biochemistry Human
development andpsychologyMathematicsand statistics Physics
Nervous System Primary functions Control systems of the body Primary
component - neuron Responds to acute challenges of the body Important
consideration in: Disease conditions (e. G. Cerebral palsy) Sport performance
(e. G. Controlling movement) Afferent Nerves: send signals to the brain
Efferent Nerves: send signals from brain to the organ/muscle Muscular
System Primary function: Provide movement Primary component Types of
muscle: Skeletal Cardiac Smooth - muscle fiber Hypertrophy: increase in size
of muscle Atrophy: decrease in size of muscle
Skeletal System Primary functions: Structural framework for the body
Protects underlying organs and tissues Provides a lever system for
movement Serves as a storage area for minerals Primary component -
minerals and cells bone Osteoporosis is a serious disease condition: bones
get brittle/weak Estonian: when bones get soft Cardiovascular System
Transporting oxygen, nutrients, hormones, electrolytes, and drugs Removing
waste products from the body Primary component - heart, blood vessels, and
blood Urinary System Elimination of waste products

Regulation of fluid volume, electrolyte composition, and pH Primary component - kidney Hypertension can be influenced by increasing the amount of fluid removed by the kidneys Endocrine System Regulation of physiologic function and systems of the body Primary components - endocrine glands Development of insulin resistance leads to a disease condition known as metabolic syndrome Go over the clustering of metabolic syndrome risk factors Exercise Physiology: Study of the functional and physiologic responses and adaptations that occur during and following physical activity and exercise.