



EKJOT SANGHA

INTEGRATED SCIENCE
AMBASSADOR

4TH YEAR, MAJOR

THEME OF MY INTEGRATION:

The Effects of Exercise and Injuries on Human Physiology and Anatomy

I have integrated Human Physiology and Kinesiology to explore how the body physiologically and anatomically changes in response to exercise and neuromuscular injuries in both healthy and clinical populations. My goal is to construct a scale of physical health and understand how exercise and injuries can influence an individual's placement on this scale.

WHAT I AM INTEGRATING:

DISCIPLINE #1

Physiology:

The scientific study of the biochemical and physical life processes that allow organisms to cope and survive within their environment. It pays close attention to molecular mechanisms involved within bodies and how they can be altered based on different stimuli. Depending on the condition of the organism, healthy or diseased, these processes can be drastically altered.

DISCIPLINE #2

Kinesiology:

The scientific study of how the body moves biomechanically, physiologically, and psychologically. More specifically, it can be used to study movements in health and during injuries in depth.

SAMPLE CURRICULUM RATIONALE

CAPS 301 – Human Physiology

This course focuses on the physiology of human organ systems. Not only will it allow me to establish a concrete foundation of physiology, but it will also enable me to learn how human organs should ideally function in healthy populations. This course is crucial in gaining a holistic understanding of human physiology. It will also provide me with the knowledge to analyze the interrelations of the processes in different organ systems.

KIN 473 – Neuroanatomy of Human Movement (now KIN 411)

This course compares the neural anatomy of the movement of humans in healthy populations and those in clinical populations. Thus, it contributes anatomical aspects to a scale of physiological health. It will highlight the impacts that injuries and diseases can have on neuromuscular anatomy which will enable me to identify the key clinical characteristics in human movement.

CONTACT

ekjotsangha1@gmail.com