

# MSES 520 : Advanced Exercise Physiology

An in-depth examination of advanced-level scientific principles and research in exercise physiology and human performance. In this course, you will gain exposure to advanced concepts in human exercise physiology and performance, with emphasis on the structural and functional plasticity of muscle, the autonomic nervous system and stress response pathways, the endocrine system and exercise, exercise and immune function, and the impact of extreme environments on human performance. This course will also introduce you to new areas of exercise physiology research to include advances in genomics and proteomics. Students will build the capacity to appropriately critique scientific research in exercise physiology and gain an understanding of how advanced concepts can be applied in future careers as exercise and health practitioners.

**Credits 3**