Course Name: KNPE 425/3.0
Physiology of Stress
Not Offered in 2019-2020

Course Instructor: 

Contact Hours:
Lectures: 2 x 1.5 hrs / 12 weeks

Prerequisite:
KNPE 225/3.0 and KNPE 227/3.0
Level 4 or above in a KINE or PHED Plan.

Exclusion:
KNPE 493/3.0-001 Topic ID Stress Physiology (Offered winter 2016)

Course Description:
An in-depth exploration of physiological responses to primarily psychological sources of stress. An emphasis is placed on understanding the interaction between stress responses and function/health.

Course Texts:
Resources will be posted on OnQ.

Intended Student Learning Outcomes:
• Describe stress, physiological stress response activation and its short and long term consequences in order to support advanced discussion
• Apply an understanding of physiological stress responses to explain mechanisms by which stress can influence function and health
• Describe the nature and physiological impact of selected stress management strategies to explain potential value as interventions
• Interpret and evaluate and present research related to stress physiology to discuss evidence, generate hypotheses, answer questions and demonstrate communication skills.

Course Evaluation:
Term tests (3) 55%
Research Assignment 27%
Quizzes (18) 18% (lowest two marks will be dropped)

Course Outline
The physiological stress response
Acute stress and endothelial function – variability and conclusions
The physiological stress response and stimulating responses in the lab
Impact of acute exercise on stress reactivity
Acute stress reactivity and CV health
Chronic stress – evidence regarding the influence on cardiovascular health
Acute stress and endothelial function
Occupational stress – assessment and findings
Acute stress and endothelial function-mechanisms-SNA
Stress management
Acute stress and endothelial function – mechanisms – cortisol and ET-1
Stressful life events and depression