Course Syllabus

Course: KIN 435 001 2020W

Course Title: Exercise Physiology of Movement

Instructor: Bio

Course Description:

This course provides an overview of the physiological processes involved in exercise, with a focus on the human body's ability to adapt to various levels of physical activity. The course will cover topics such as muscle function, energy metabolism, and cardiovascular responses to exercise. Students will also learn about the role of exercise in health and fitness, as well as the scientific principles underlying athletic performance.

Course Goals:

By the end of the course, students will be able to:

- Understand the physiological principles underlying exercise physiology
- Analyze and interpret data related to exercise physiology
- Apply knowledge of exercise physiology to real-world situations

Course Policies:

- Attendance: Regular attendance is expected. Late assignments will be accepted with a penalty of 10% per day.
- Course revision & improvements: Course materials and assessments will be revised throughout the semester to ensure the best learning experience.

Course Structure:

- Class meetings will be held weekly to cover new material.
- Assignments and readings will be posted on the course Canvas site.
- Quizzes will be administered to assess understanding of course content.

Course Requirements:

- Attendance at all class meetings
- Completion of all assignments
- Participation in online discussions

Course Summary:

The course provides an overview of exercise physiology, with a focus on the human body's ability to adapt to various levels of physical activity. The course will cover topics such as muscle function, energy metabolism, and cardiovascular responses to exercise. Students will also learn about the role of exercise in health and fitness, as well as the scientific principles underlying athletic performance.

Course Policies:

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Required Textbook:

- Textbook – Ch. 1. Structure and function of the lung
- Textbook – Ch. 2. Ventilation
- Textbook – Ch. 3. Blood flow and metabolism: how gases are moved to one another
- Textbook – Ch. 4. Blood fusion: how gas gets into fluids
- Textbook – Ch. 5. Blood diffusion and transport by the blood
- Textbook – Ch. 6. Gas exchange is regulated
- Textbook – Ch. 7. Venous return

Schedule of Topics:

- Week 1/Aug 25 & 27 Module 1. Structure, function, and exchange
- Week 2/Sept 15 & 17 Module 1. Structure, function, and exchange
- Week 3/Sept 22 & 24 Module 2. Control of breathing
- Week 4/Sept 29 & Oct 1 Module 2. Control of breathing
- Week 5/Oct 6 & 8 Module 3. Ventilation mechanics
- Week 9/Nov 3 & 5 Module 5. Pulmonary mechanics and lung mechanics & an exercise
- Week 10/Nov 10 & 12 Module 5. Pulmonary mechanics and lung mechanics & an exercise
- Week 11/Nov 17 & 19 Module 6. Control of blood flow and metabolism
- Week 12/Nov 24 & 26 Module 6. Control of blood flow and metabolism
- Week 13/Dec 1 & 3 Module 6. Control of blood flow and metabolism
- Week 14/Dec 8 & 10 Module 6. Control of blood flow and metabolism
- Week 15/Dec 15 & 17 Module 6. Control of blood flow and metabolism
- Week 16/Dec 22 & 24 Lecture/Discussion

Assignments:

- Assignment X: <PLACEHOLDER>
- Quiz (5 of 6 will count) 5 X 20% = 100%

Additional Materials:

- Course Communications
- University Policies
- Faculty Resources
- Instructor Bio

Web: UBC's Centre for Accessibility website
Web: UBC's Centre for Aboriginal Education website
Web: Pacific Institute for Sport & Health website
Web: Canadian Society for Exercise Physiology website
Web: University of British Columbia website
Web: UBC's Faculty of Science website
Web: UBC's Faculty of Medicine website

If you have any challenges accessing materials that will impact your success in this course, UBC’s Centre for Accessibility provides useful resources on these topics.

Faculty Resources:

- Faculty of Science Academic Counselling
- Centre for Faculty Development & Support
- Faculty of Science Research Services

Instructor Bio:

Dr. Sheel (Bill) completed his education at Canadian institutions (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who have passed on in their culture, history, and traditions from one generation to the next on this site. Dr. Sheel is added or changed.

Collaborator Information:

Course revision & improvements:

- Please include KIN 435 in the subject line of emails.
Students Learning Outside of Canada
During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3.33.86.0 for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses.

For further information and support, please visit: https://academic.ubc.ca/supportresources/freedom-expression.