Course Outline

School of Health Wellness and Human Services, Fitness Leadership and Movement

University Studies

Fall, 2015

PEDS 200 Exercise Physiology
3 credits, 16 weeks, *5 hours per week (3 hours lecture, 2 hours lab)*

Official course description:
An introduction to physiological adaptations to stress of exercise and training.

Prerequisites and/or co-requisites: PEDS 101

Instructor
Michael Scarlett
Office location: S213E
Phone number: (780) 791-4824
michael.scarlett@keyano.ca

Office Hours

Monday	13:00 -14:50
Thursday	09:00 -10:50
Friday	13:00 -14:50

Hours of Instruction

Day	Location	Time	
Tuesday	SSWC 2321	13:00 – 13:50	
Wednesday	SSWC 2321	08:00 – 09:50	Laboratory
Thursday	SSWC 2321	14:00 – 14:50	
Friday	SSWC 2321	10:00 -- 10:50	

Required Resources

Essentials of Exercise Physiology. 4th edition. Lippincott, Williams and Wilkins McArdle, W., Katch, F., and Katch, V.

Lab Modules Available on Moodle

Course Outcomes

1. Describe and discuss the physiological responses to acute and chronic exercise.
2. Define the basic function of various physiological systems;
3. Describe the various physiological changes that occur during acute exercise and the various adaptations to different forms of exercise training and environmental influence
4. Define the basic ergometry and other laboratory instrumentation for evaluating physiological responses to exercise;
5. Experience exercise stress in a laboratory setting as a participant and tester.

Evaluation

Lab:		
Lab Exam	15%	(Nov 30th 2015)
Lab Reports	20% (2 x 10%)	
Weekly Assignments	5%	
Unexcussed absenses	- 5% each	
Lecture:		
Midterm Exams	20%	(Oct 14th 2015)
Final Exam	40%	(Exam week)
Total	**100%**	

*A grade of **C-** is required for progression or transfer.*

Grading System

Descriptor	Alpha Grade	4.0 Scale	Percent	Rubric for Letter Grades
Excellent	A+	4.0	> 92.9	Work shows in-depth and critical analysis, well developed ideas, creativity, excellent writing, clarity and proper format.
	A	4.0	85 – 92.9	
	A-	3.7	80 – 84.9	
Good	B+	3.3	77 – 79.9	Work is generally of high quality, well developed, well written, has clarity, and uses proper format.
	B	3.0	74 – 76.9	
	B-	2.7	70 – 73.9	
Satisfactory **Progression**	C+	2.3	67 – 69.9	Work has some developed ideas but needs more attention to clarity, style and formatting.
	C	2.0	64 – 66.9	
	C-	1.7	60 – 63.9	
Poor **Minimum Pass**	D+	1.3	55 – 59.9	Work is completed in a general way with minimal support, or is poorly written or did not use proper format.
	D	1.0	50 – 54.9	
Failure	F	0.0	< 50	Responses fail to demonstrate appropriate understanding or are fundamentally incomplete.

Important Dates:

September 8th , 2015	Last day to add for fall semester. Fees due
September 15th , 2015	Courses dropped by this date will be designated "W" and you will receive a full refund. (a withdrawal "W" is not reflected in your GPA)
October 9th , 2015	Courses dropped by this date will be designated "W" and you will receive a 50% refund.
November 11th to 13th , 2015	College closed for Remembrance Day and Reading days
November 25th , 2015	Courses dropped by this date will be designated "W".
December 4th , 2015	Last day of Class
December 7th to 11th, 2015	Final Exams

Proposed Schedule of Topics

	Topic	Essentials of Exercise Physiology. 4th edition.
Week 1	Introduction to Exercise Physiology What do Exercise Physiologists do? The Laboratory Experience	Chapter 1 *Supplementary Lab Materials*
Week 2	Energy Transfer fundamentals	Chapter 5
Week 3	Energy Transfer During Exercise	Chapter 6
Week 4	Energy Transfer Measurement at Rest and during Exercise	Chapter 7 & 8
Week 5	Special Topic: Fatigue Special Topic: Nutritional and Pharmacological Aids to Performance	Chapter 4
Week 6	The Pulmonary Support System Special Topic: Exercise at Altitude ***First Lab Report Due by Friday at 1600***	Chapter 9 Chapter 15, Part 3
Week 7	The Cardiovascular Support Systems Special Topic: Mechanisms of Thermoregulation **Midterm**	Chapter 10 Chapter 15, Part 1
Week 8	Training the Aerobic and Anaerobic System Special Topic: Exercise and the Environment	Chapter 13 Chapter 15, Part 2
Week 9	The Neuromuscular System	Chapter 11
Week 10	Hormones Exercise and Training	Chapter 12
Week 11	Training Muscles to Become Stronger	Chapter 14
Week 12	Body Composition	Chapter 16
Week 13	Physical Activity, Exercise, Aging and Disease Control ***Second Lab Report Due by Friday at 1600***	Chapter 17
Week 14	Review ***Lab Exam Wednesday December 3rd***	

Lab Schedule

	Topic
Week 1	**NO LABS**
Week 2	Lab 1 Ergometry
Week 3	Lab 2 Efficiency
Week 4	Lab 3 Muscular Strength
Week 5	Lab 4 Interval vs. Continuous Training **Lab Report Topic**
Week 6	Lab 5 Power and Capacity
Week 7	Lab 6 Submaximal Exercise and Predictions
Week 8	Lab 7 The Anaerobic Threshold
Week 9	Lab 8 Maximal Oxygen Consumption

Week 10	Lab 9 Thermal Regulation **Lab Report Topic**
Week 11	**NO LABS**
Week 12	Lab 10 Body Composition
Week 13	Review
Week 14	**Lab exam** ***Wednesday December 3rd***

Please Note:
Date and time allotted to each topic is subject to change. It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College Credit Calendar.

Performance Requirements

Lab Policy

Attendance is taken at each lab period. It is **MANDATORY** that you attend every lab throughout the term There will be **5% deduction** from the final lab mark for every missed lab. Students are able to miss one lab with a written reason (I.e. death in the family, extreme sickness). Athletics is NOT a reason to miss labs.

Students should come dressed in gym strip to all designated lab activities and students are encouraged to actively participate in every lab session in learning the methods, performing techniques, answering questions directed by the lab instructor, discussing the procedures, working with peers and helping with cleaning the lab area after each lab.

Laboratory Safety

In the science laboratories, safety is important.

Students must complete the *WHMIS for Students* online training course on Moodle before entering the science laboratories.

Students must comply with the mandatory laboratory safety rules for this course as provided in the laboratory manual. Failure to do so will result in progressive discipline such as a verbal warning, refused entry into the laboratory, or suspension from the College.

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and / or notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Student Code of Conduct section of the Keyano College 2015-2016 credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

Specialized Supports

Counselling and Disability Services

Counselling Services provides a wide range of specialized counselling services to prospective and registered students, including personal, career and academic counselling.

SKILL Centre

The SKILL Centre is a learning space in the Clearwater Campus at Keyano College where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff.

The SKILL Centre, through a variety of delivery methods, provides assistance in skill development to Keyano students. Assistance is provided by instructors, staff and student tutors. Individuals wishing to improve their mathematics, writing, grammar, study, or other skills, can take advantage of this unique service.

Authorization

This course outline has been reviewed and approved by the Program Chair.

Michael, Scarlett, Instructor

[Louis Dingley, Chair, University Studies — Date Authorized

Guy Harmer, Dean, University Studies — Date Authorized

Vincella Thompson, Dean, School of Health, Wellness and Human Services — Date Authorized

Signed copies to be delivered to:
Instructor
Registrar's Office