

COURSE OBJECTIVES:

- To provide the student with a knowledge and understanding of the concepts of various physiological systems at rest and during exercise
- To provide the student with the knowledge and understanding of the physiological adaptations to different forms of exercise training and environmental influences
- To develop skills in basic ergometry and laboratory instrumentation (metabolic cart) for evaluating physiological responses to exercise.

LEARNING OUTCOMES:

- Students who successfully complete this course will be able to:
- Identify various training methods in relation to the three major energy systems and how they apply to exercise physiology
- Review material for PE1015/PE1030 and integrate them into the concept of exercise
- Explain various types of exercise training and the adaptations made
- Name, describe and implement a variety of physiological tests that may be used on humans of various abilities
- Explain and implement basic and advanced ergometry for evaluating physiological responses to exercise
- Explain research and analytical skills used to create a laboratory report
- Analyze research and apply the appropriate concepts to class sessions

TRANSFERABILITY:

A list of institutions to which this course transfers (For example: UA, UC, UL, AU, GMU, CU, CUC, KUC. Please note that this is a sample and it must be replaced by your specific course transfer)

***Warning:** Although we strive to make the transferability information in this document up-to-date and accurate, **the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities.** Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page <http://www.transferalberta.ca> or, if you do not want to navigate through few links, at <http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>

**** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

EXAMINATIONS

Lecture

Midterm Exam February 15 th , 2017	20%
Final Exam TBA: April 17-27, 2017	40%

Laboratory

Lab Write-Ups (2 @10% each)	20% -	See Schedule for due dates.
Lab Take Home Questions	5% -	Due at the start of each lab.

GRADING CRITERIA: (The following criteria may be changed to suite the particular course/instructor)

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:**January 9 – February 13th**

1. Introduction to Exercise Physiology
2. Measuring and Evaluating Energy –Generating Capacities during Physical Activity
3. Macronutrients and Micronutrients
4. Food Energy and Optimum Nutrition for Physical Activity
5. Nutritional and Pharmacologic Aids to Performance
6. Fundamentals of Human Energy Transfer
7. Human Energy Transfer During Physical Activity
8. Energy Expenditure During Rest and Physical Activity

February 15th – Mid-Term**February 27 – April 3; April 10-12**

- The Pulmonary System and Physical Activity
- The Cardiovascular System and Physical Activity
- The Neuromuscular System and Physical Activity
- Hormones, Physical Activity and Exercise Training
- Training the Anaerobic and Aerobic Energy Systems
- Training Muscles to Become Stronger
- Factors Affecting Physiologic Function: The Environment and Special Aids to Performance
- Body Composition, Obesity and Weight Control
- Physical Activity, Successful Aging and Disease Presentation

April 5th – Final LAB EXAM in class

Special Note: FINAL EXAM is scheduled during the exam period April 17 – 27, 2017

LAB TIMELINE:

<u>Week of:</u>	<u>Lab#</u>	<u>Lab Title</u>
Jan. 9-13	1	Intro/Ergometry
Jan. 16-20	2	Energy Expenditure & Efficiency (No labs Jan. 27, 30, 31)
Jan. 23-24, Feb. 3	3	Anaerobic Power & Capacity (Lab write up)
Feb. 6-10	4	Intermittent vs. Continuous
Feb. 13-17	6	Physiological Responses to Submax PO
Feb. 20-24		READING WEEK NO LABS
Feb. 27-Mar. 3	7	Anaerobic Threshold
Mar. 6-10	8	Maximal Oxygen Consumption (Lab write-up)
Mar. 13-17		NO LABS
Mar. 20-24	9	Thermoregulation
Mar. 27-31	10	Body Comp/Review
Apr. 3-7		Final Lab Exam, Wed. Apr. 5 th in PE 2000 class

STUDENT RESPONSIBILITIES:

This is a 3 credit course with 2 classes and 1 lab a week. It is the student's responsibility to read and understand the required areas of the text. The objective of the lectures is to highlight the major concepts of each topic area and provide examples to facilitate comprehension.

Students are encouraged to read other Chapters in the text such as 6-8 and Appendices A-E to gain an appreciation of physiological testing, training methodology, training adaptations and ergogenic aids that impact the acute and chronic adaptations to exercise. Some of these topics will be incorporated in the lectures and labs but are primary topics of other courses.

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

**Note: all Academic and Administrative policies are available on the same page.