



# Grande Prairie Regional College

Department of Physical Education, Athletics & Kinesiology

COURSE OUTLINE – WINTER 2010  
PE 2000 Physiology of Exercise  
(3-0-2) UT [75 hours]

<b>Instructor</b>	Jody Virr	<b>Phone</b>	Office: 539-2893
Labs:	Andrew Boone	<b>E-mail</b>	<a href="mailto:jvirr@gprc.ab.ca">jvirr@gprc.ab.ca</a>
<b>Office</b>	K217	<b>Class Times</b>	Monday & Wednesday 10:00 a.m. – 11:20 a.m.
<b>Office Hours</b>	Drop in or by appointment	<b>Lab Times</b>	L1 – Tuesday 2:30-4:20pm L2 – Monday 12:00-1:50pm
		<b>Lab Location</b>	J227

**Prerequisite(s):**

PE1015 Essentials of Human Physiology

**Course Description:**

The lecture, laboratory experience and supplementary readings are designed to promote an understanding of the physiological responses to acute and chronic exercise.

**Course Objectives:**

At the conclusion of the course the student will be able to:

1. Understand the basic function of various physiological systems at rest and during exercise.
2. Describe the various physiological adaptations to different forms of exercise training and environmental influences.
3. Understand basic ergometry and other laboratory instrumentation for evaluating physiological responses to exercise.
4. Experience exercise assessment in a laboratory setting as a participant and tester.

### **Required Text/Resource Materials:**

1. McArdle, W.D., Katch F.L., and Katch, V.L. (2006). Essentials of Exercise Physiology, 3<sup>rd</sup> Edition. Philadelphia: Lippincott, Williams & Wilkins.
2. PEDS 200 Course Pack - Physiology of Exercise Laboratory Manual. University of Alberta.

### **Course Layout:**

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. Class notes will be posted on Moodle prior to lecture date.

Students are encouraged to read other chapters in the text such as 4, 13, & 14 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.

### **Course Evaluation:**

#### **Lecture**

Midterm Exam	20%	February 8 <sup>th</sup> , 2010
Final Exam	40%	TBA

#### **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.
Final <i>Lab</i> Exam	15%	April 14 <sup>th</sup> , 10:00 -11:20 am
<b>TOTAL</b>	<b>100%</b>	

### **Important Additional Course and Lab Information:**

- Lecture midterm and final exams are in multiple choice format but may include calculation type questions.
- The laboratory exam will be held during the last lecture class.
- The weekly lab questions are to be completed by the student on their own time and must be handed in prior to the start of each lab. **If you are late for the lab, your questions will be late and you will receive a grade of 0.** The lab questions are worth **5%** of your lab grade.
- Lab write-ups (2 in total) are due the following lab (1-week later, depending on the schedule) at the **start** of the lab session. **No exceptions** (**10%** for first lab write-up and **10 %** for second lab write-up). **No late labs will be accepted at all, unless you have a medical note. You will be given a grade of 0 for any late lab write-ups. Remember coming late to a lab that a write-up is due will be given a grade of 0.**
- Laboratory experiences will be provided on a demonstration-seminar format. Students will participate in data collection, reduction, and interpretation on a regular basis, and occasionally must participate as subjects. A significant portion of each lab period will be devoted to discussion of the current topic and students **must be prepared to assist with procedures as well as ask and answer questions to have an optimal experience.**
- **Attendance in the lab is mandatory.** If you miss a lab without medical reasons (Health services form with doctors signature is required), there will be 5% deducted from your lab grade.
- **Hepatitis B Inoculations:** it is strongly recommended that all students have a Hep B inoculation. These can be obtained through Health Services.

### **Delivery Mode(s):**

Lecture and Lab

### **Transferability:**

UA, US, UL AU, AF, CU, KUC

\*See GPRC Calendar/Transfer Guide

**Department of Physical Education, Athletics & Kinesiology**  
**Grading Conversion Chart**

<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Designation</b>
<b>A<sup>+</sup></b>	<b>4.0</b>	<b>EXCELLENT</b>
<b>A</b>	<b>4.0</b>	
<b>A<sup>-</sup></b>	<b>3.7</b>	<b>FIRST CLASS STANDING</b>
<b>B<sup>+</sup></b>	<b>3.3</b>	
<b>B</b>	<b>3.0</b>	<b>GOOD</b>
<b>B<sup>-</sup></b>	<b>2.7</b>	
<b>C<sup>+</sup></b>	<b>2.3</b>	<b>SATISFACTORY</b>
<b>C</b>	<b>2.0</b>	
<b>C<sup>-</sup></b>	<b>1.7</b>	
<b>D<sup>+</sup></b>	<b>1.3</b>	<b>MINIMAL PASS</b>
<b>D</b>	<b>1.0</b>	
<b>F</b>	<b>0.0</b>	<b>FAIL</b>
<b>WF</b>	<b>0.0</b>	<b>FAIL, withdrawal after the deadline</b>

Evaluation will be completed and expressed in raw marks (%) throughout the course. Grades (using the letter grading system) will be assigned only to the final distribution of mark totals for the course. Such assignment will be based on a combination of absolute achievement and relative performance in the class.

**Statement on Plagiarism and Cheating:**

Please refer to pages 49-50 of the College calendar regarding plagiarism, cheating and the resultant penalties. These are serious issues and will be dealt with severely.

## Lecture Schedule PE 2000:

<b>Date</b>	<b>Schedule</b>	<b>Readings</b>
Jan. 6	WHMIS, Introduction, Terminology, Ergometry	
Jan. 11, 13	Bioenergetics/Energy Expenditure & Efficiency	Ch. 7, 8
Jan. 18, 20, 25	Human Energy Transfer	Ch. 5, 6, 7
Jan. 27, Feb. 1	Fatigue and Recovery	Ch. 6
Feb. 3	Neuromuscular System & Exercise	Ch. 11
<b>Feb. 8</b>	<b>Midterm</b>	
Feb. 10	Neuromuscular System & Exercise	
<b>Feb. 15</b>	<b>Family Day</b>	
Feb. 17, 22, 24, Mar. 1	Pulmonary & Cardiovascular Systems & Exercise	Ch. 9, 10
Mar. 3	Environment & Exercise	Ch. 15
<b>March 5-12</b>	<b>Winter Break</b>	
Mar. 15	Environment & Exercise	
Mar. 17, 22	Body Composition	Ch. 16
Mar. 24, 29	Sport Nutrition	Ch. 2, 3
Mar. 31, Apr. 5	Exercise Endocrinology	Ch. 12
<b>April 2</b>	<b>Good Friday</b>	
Apr. 7, 12	Exercise, successful aging, disease prevention	Ch.17
Apr. 14	Lab Final Exam	
<b>TBA</b>	<b>Final Exam</b>	

**Lab Schedule PE 2000:**

Date		Schedule	Location
Jan. 11	Jan. 12	Introduction / Ergometry	J227
Jan. 18	Jan. 19	Energy Expenditure & Efficiency	J227
Jan. 25	Jan. 26	<b>*Anaerobic Power &amp; Capacity*</b>	J227
Feb. 1	Feb. 2	Intermittent vs. Continuous Exercise <b><i>Lab write-up due prior to start of lab</i></b>	J227
Feb. 8	Feb. 9	Force - Velocity Relationships & Thermoregulation	J227
<b>Feb. 15</b>		<b>Family day - No Labs this week</b>	
Feb. 22	Feb. 23	Physiological Responses to Progressive Submaximal Power Outputs	J227
Mar. 1	Mar. 2	Anaerobic Threshold	J227
<b>March 5-12</b>		<b>Winter Break - No Classes</b>	
Mar. 15	Mar. 16	<b>*Maximal Oxygen Consumption*</b>	J227
<b>March 22 &amp; 23</b>		<b>No Labs this week</b>	
March 29	March 30	Body Composition <b><i>Lab write-up due prior to start of lab</i></b>	J227
Apr. 5	Apr. 6	Review	J227
April 14		<b><i>Lab Final Exam in regular class time</i></b>	

**\*Denotes Lab write-up week\***

**Deferred exams will be written on January 2, 2009 in Room E-120 at 09:00 am.**

**PLEASE NOTE the following information:**

Deferred exams apply ONLY to final exams – not to mid-term work. Students MUST apply to their home Faculty Office (in the case of students registered in the Faculty of Physical Education and Recreation, they must go to the Assistant Dean Undergraduate office). There is a fee of approximately \$40 for EACH exam. Instructors MUST direct students to their home Faculty Office if they are approached regarding the possibility of a student writing a deferred exam. University final exams are scheduled up until (and including) December 22<sup>nd</sup> this year. Please note that there are very specific criteria for approving a deferred exam. Many students request deferred exams during the first term due to travel plans for the Christmas/New Year's break. This is not (normally) accepted as a valid reason to grant a deferred exam. If you have any questions at all about deferred exams, please come and talk to Dr. Hinch (Associate Dean, Undergraduate Program) or Tana Farrell (Undergraduate Program) as soon as possible. Students who have already made plans, or are going to make plans for the break should be advised to talk to their advisor, or make an appointment to see Dr. Hinch – PRIOR to the drop deadline.

*“The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at [www.ualberta.ca/secretariat/appeals.htm](http://www.ualberta.ca/secretariat/appeals.htm)) and avoid any behaviour which could result in suspicions of cheating, plagiarism, misrepresentations of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University” (University of Alberta Calendar).*