Grande Prairie Regional College

Department of Physical Education, Athletics & Kinesiology

COURSE OUTLINE – WINTER 2012

PE 2000 Exercise Physiology

INSTRUCTOR:	Ray Kardas	**PHONE**	Office: 539-2990
Labs:	Andrew Boone	**E-MAIL**	rkardas@gprc.ab.ca
OFFICE HOURS	C418 Drop in or by appointment	**CLASS TIMES**	Monday & Wednesday 10:00 a.m. – 11:20 a.m. J228
		LAB TIMES	L1 – Tuesday 2:30-4:20pm L2 – Monday 12:00-1:50pm L3 – Friday 10:00 – 11:50 am
		LAB LOCATION	STUDB3

PREREQUISITE(S):

PE1015 Essentials of Human Physiology

REQUIRED TEXT/RESOURCE MATERIALS:

1. Kraemer, W.J., Fleck, S.J. and Desclenes. (2012). Exercise Physiology: Integrating Theory and Application. Philadelphia: Lippincott, Williams and Wilkins

2. PE2000 Course Pack - Physiology of Exercise Laboratory Manual. University of Alberta.

CALENDAR DESCRIPTION:

The lecture, laboratory experience and supplementary readings are designed to promote an understanding of the physiological responses to acute and chronic exercise. Successful completion of the course requirements will enable one to understand the basic function of various physiological systems: describe the various physiological changes that occur during acute exercise and the various adaptations to different forms of exercise training and environmental influence; understand the basic ergometry and other laboratory instrumentation for evaluating physiological responses to exercise; and experience exercise stress in a laboratory setting as a participant and tester.

CREDIT/CONTACT HOURS: 3 (3-0-2) UT [75 hours]

DELIVERY MODE: Lecture, Problem-Solving exercises, lab

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.

TRANSFERABILITY:

UA, US, UL AU, AF, CU, KUC (See page 163 of GPRC 2010-2011 Calendar

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.

GRADING CRITERIA:

Alpha Grade	4-point Equivalent	Designation
A+	**4.0**	**EXCELLENT**
A	**4.0**	
A–	**3.7**	**FIRST CLASS STANDING**
B+	**3.3**	
B	**3.0**	**GOOD**
B–	**2.7**	
C+	**2.3**	**SATISFACTORY**
C	**2.0**	
C–	**1.7**	
D+	**1.3**	**MINIMAL PASS**

D	**1.0**	
F	**0.0**	**FAIL**
WF	**0.0**	**FAIL, withdrawal after the deadline**

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. The equivalent percentages for the above letter grades are found on page 44 of the GPRC Admissions Guide: 2011-2012.

EXAMINATIONS

Lecture

Midterm Exam	20%	February15th, 2012
Final Exam	40%	TBA
Laboratory		
Lab Write-Ups (2 @10% each)	20%	See Lab Schedule for due dates.
Lab Take Home Questions	5%	Due at the start of each lab.
Final *Lab* Exam	15%	April 11th , 10:00 -11:20 am
TOTAL	**100%**	

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 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.

STATEMENT ON ACADEMIC REGULATIONS AND STUDENT CONDUCT:

Please refer to pages 43-52 of the GPRC Admissions Guide: 2011-2012.

PE 2000 – Exercise Physiology Lab Schedule: January – April 2012

Week of:	Lab No.	Lab Title	Equipment & Lab Space	THQd
J 9-13	1	Introduction/Ergometry (#1)	Bike, Row erg., Cart, Calibration weights	
J 16-20	2	Energy Expenditure & Efficiency at Rest and During Different Modes of Exercise (#2)	Bike, Row erg., Cart	#1
J23-27	*3	Anaerobic Power and Capacity (#3)	Lactate Analyser, Wingate bike, Computer	#2
J30-F3	4	Intermittent vs. Continuous (#4)	Bike, Hand grip, Exercise and Fatigue	#3
F 6-10		No Labs this week		
F 13-17	5	Physiological Responses to Progressive Submaximal Power Outputs (#6)	Bike/Treadmill, Cart	#4
F 20-24		READING WEEK – NO LABS		
F 27-M2	6	Anaerobic Threshold (#7)	Bike/Treadmill, Cart, Lactate Analyser	#6
M 5-9	*7	Maximal Oxygen Consumption (#8)	Bike/Treadmill, Cart	#7
M 12-16	8	Thermoregulation (#9)/Force Velocity (#5)	Bike/Treadmill, Cart, Tympanic Membrane Temp Sensor	#8
M 19-23	9	Body Composition/Review	Underwater Weigh Tank	#5, #9
M 26-30		No Labs this week		
A 2-6		Final Lab Exam on Wednesday April 4th in PE2000 class		