



DEPARTMENT OF PHYSICAL EDUCATION AND KINESIOLOGY (PEAK)

COURSE OUTLINE- WINTER 2013

PE 2000: EXERCISE PHYSIOLOGY

INSTRUCTOR: (LE) Matthew Bain **PHONE:** (780) 539-2974
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OFFICE HOURS: By appointment, drop in, or as necessary.

PREREQUISITE(S)/COREQUISITE: PE 1015: Essentials of Human Physiology

REQUIRED TEXT/RESOURCE MATERIALS:

- Kraemer, W.J., Fleck, S.J. and Deschenes, M.R. (2012). *Exercise Physiology: Integrating Theory and Application*. Philadelphia: Lippincott, Williams and Wilkins
- PE2000 Course Pack - Physiology of Exercise Laboratory Manual. University of Alberta (Available from Bookstore)

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).

- **LECTURE:** PE 2000 includes two (2), eighty- minute (80) classes per week: Monday & Wednesday, 10:00- 11:20 am.
- **LAB:** Each student is expected to attend one (1), one-hundred and ten (110) lab per week as per the laboratory schedule. These labs occur on:
 - o *Monday (L2) from 12:00- 1:50 pm*
 - o *Tuesday (L1) from 2:30- 4:20 pm.*

Please be sure to check which lab you are registered in and ATTEND that specific lab.

DELIVERY MODE(S): This course work includes lectures, class discussions, in-class exercises, and individual student work that include various delivery methods.

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:

PEDS 200 (3 credits)--U of A	Sr. KNES (3 credits)-- U of C
KNES 3610 (3 credits)-- U of L	APST 2xx (3 credits)—Athabasca
PHED 2xx (3 credits)—Kings UC	PETH 410 (3 credits)—Canadian UC
PEDS 200 (3 credits)- MacEwan	

GRADING CRITERIA:

Lecture Examinations	3 (Three) examinations throughout the semester. Each of these examinations is worth 20%.
Laboratory Examinations	5% from quizzes, Final Lab Examination is 20%, and each lab write up is worth 7.5%.

** 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.

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A⁺	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A⁻	3.7	80 – 84	FIRST CLASS STANDING
B⁺	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B⁻	2.7	70 – 72	
C⁺	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C⁻	1.7	60 – 62	
D⁺	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

STUDENT RESPONSIBILITIES:

- All assignments must be submitted in typed format adhering to ALL APA format requirements. These formats have been provided for you in the first class.
- Assignments are due on the dates established by the instructor. Extensions may be offered in lieu of SIGNIFICANT student issues and concerns as determined by the instructor. ALL extensions requests MUST be submitted to the instructor prior to the due dates. Percentage penalties will be applied up to 100 % of the assignment grade if assignments are submitted late.
- Regular attendance is a key to success in this course. Classroom activities support student comprehension of materials, content clarification, relevant peer questions and support, and finally, clues as to relevant examination materials. It is the student's responsibility to acquire the material missed and to complete assigned readings, in-class work, and assigned homework.

STATEMENT ON CELL PHONE AND OTHER PERSONAL ELECTRONIC DEVICES:

- Users of cell phones and other personal electronic devices must be attentive to the needs, sensibilities and rights of other members of the College community. **The use of these devices must not disrupt the functions of the College overall and its classrooms and labs.** Instructors have the right to have strict individual policies related to cell phones in order to provide and maintain a classroom environment that is conducive to learning and the respect of others.
- **Cell phones, PDAs and pagers must be turned off and placed out of sight in classrooms and computer labs during instructional time. Devices can be turned on and set to silent mode only with the expressed consent of individual instructors.** Sending or receiving text messages or gaming on a cell phone during class is not acceptable. In addition, cell phones and other personal electronic devices incorporating cameras must be turned off and out of sight in any area in which individuals have reasonable expectations of privacy. This includes classrooms and computer labs.
- If cell phones, pagers, calculators, recorders, digital cameras, PDAs, MP3 players or other personal electronic devices are used inappropriately for the purposes of cheating or academic dishonesty, then students who do so will be penalized appropriately under the Academic Honesty policy of Grande Prairie Regional College.

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.

**PE 2000 – Exercise Physiology Lecture & Exam Schedule: January –
April 2013**

WEEK	TOPIC	ASSIGNED READINGS	EXAMINATION DATES
January 9	Course Introduction		
January 14, 16 & 21	Bioenergetics and Meeting the Metabolic Demand for Energy	Chapter 2	
January 23, 28, & 30	Skeletal Muscle System	Chapter 3	
February 4, 6, & 11	The Nervous System	Chapter 4	Examination #1
February 18 & 20	Reading Week	No Reading	
February 25, 27, & March 4	Cardiovascular System	Chapter 5	
March 6, 11, & 13	Respiratory System	Chapter 6	
March 18, 20, & 25	Endocrine System	Chapter 7	Examination #2
March 27, April 1, & 3	Nutrition & Fluid and Electrolytes Challenges in Exercise	Chapter 8 & 9	
April 8 & 10	Environmental Challenges and Exercise Performance	Chapter 10	
Exam Week			Examination # 3: TBD

PE 2000 – Exercise Physiology Lab Schedule: January – April 2013

Week of:	Lab No.	Lab Title	Equipment & Lab Space	Due Date
J 14-18	1	Introduction/Ergometry	Bike, Row erg., Cart, Calibration weights	
J 21-25	2	Energy Expenditure & Efficiency at Rest and During Different Modes of Exercise	Bike, Row erg., Cart	
J 28 –Feb 1	3	Anaerobic Power and Capacity	Lactate Analyser, Wingate bike, Computer	Due: Feb 11/12
F 4-8		No Lab: Office Hours		
F 11-15	4	Intermittent vs. Continuous	Bike, Hand grip, Exercise and Fatigue	
Feb 18-22		Reading Week- No Lab		
F 25- M 1	5	Physiological Responses to Progressive Submaximal Power Outputs	Bike/Treadmill, Cart	
M 4-8	6	Anaerobic Threshold	Bike/Treadmill, Cart, Lactate Analyser	
M 11-15	7	Maximal Oxygen Consumption	Bike/Treadmill, Cart	Due Mar 25/26
M 18-22	8	Force Velocity	Lab	
M 25-29	9	Thermoregulation	Bike/Treadmill, Cart, Tympanic Membrane Temp Sensor	
A 1-5	10	Body Composition/Review	Underwater Weigh Tank	
A 8-12		No Lab		
A 15		Final Lab Exam on Wednesday April 15th in PE2000 class.		