Course Outline

UNIVERSITY STUDIES

PEDS 200
Exercise Physiology
Fall, 2012

3 CREDITS
5 HOURS PER WEEK

INSTRUCTOR: James Ostoya
INSTRUCTOR:        James Ostoya

PHONE NUMBER:      Use Email

E-MAIL:           james.ostoya@keyano.ca

OFFICE NUMBER:    S213 E

OFFICE HOURS:     By Appointment

Monday            Can be arranged as per mutual availability and location availability.
Tuesday           Can be arranged as per mutual availability and location availability.
Wednesday        Can be arranged as per mutual availability and location availability.
Thursday          Can be arranged as per mutual availability and location availability.
Friday            12:00 - 1:00pm - SSWC – Office or Kinesiology Classroom 2nd Floor or
                  Kinesiology Lab 2nd Floor – As determined by availability/preference (email for
                  appointment or ask in class).

HOURS OF INSTRUCTION:

Monday            Lecture - 12:00 – 1:00pm in SSWC – Kinesiology Classroom 2nd Floor.
Tuesday           Lab - 11:00am – 1:00pm in SSWC – Kinesiology Lab 2nd Floor
                  (Begins on September 11, 2012).
Wednesday        Lecture - 12:00 – 1:00pm in SSWC – Kinesiology Classroom 2nd Floor.
Thursday          Lecture - 12:00 – 1:00pm in SSWC – Kinesiology Classroom 2nd Floor.
Friday            None.

COURSE DESCRIPTION:

An introduction to physiological adaptations to stress of exercise and training.

PRE-REQUISITE(S):

PEDS 101

COURSE OUTCOMES:

The student will be able to:

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.
REQUIRED RESOURCES:

| Essentials of Exercise Physiology. 4th edition. | McArdle, W., Katch, F., and Katch, V. |
| Lippincott, Williams and Wilkins | |
| Lab Modules | Available on Moodle 7 |

TOPICS TO BE COVERED:

Please Note:

This course outline may be modified to facilitate unforeseen time constraints. Date and time allotted to each topic is subject to change.

Week 1: Lecture 1 - Introduction and Exercise Physiology Fundamentals  
No lab

Week 2: Lecture 2 - Energy Production and Exercise – Chapters 5-8  
Lab 1 - Introduction to laboratory environment

Week 3: Lecture 2 - Energy Production and Exercise – Chapters 5-8  
Lab 2 - Basic Ergometry

Week 4: Lecture 3 - Neuromuscular System and Exercise – Chapter 11  
Lab 3 – Energy Expenditure and Efficiency at Rest and During Different Modes of Exercise

Week 5: Lecture 4 - Cardiovascular System and Exercise – Chapter 10  
Lab 4 – Comparison of Upper and Lower Limb Anaerobic Power

Week 6: Mid-term review and Mid-term exam  
Lab 5 – Intermittent vs. Continuous Exercise and Fatigue

Week 7: Review mid-term exam and;  
Lecture 5 - Pulmonary System and Exercise – Chapter 9  
Lab 6 – Force-Velocity Relationship in Muscle

Week 8: Lecture 6 - Exercise Training and Adaptations - Part 1 – Chapter 13-15  
Lab 7 – Physiological Responses to Progressive Submaximal Power Outputs

Week 9: Lecture 6 - Exercise Training and Adaptations – Part 2 - Chapter 13-15  
Lab 8 – Anaerobic Threshold

Week 10: Lecture 7 - Body Composition and Sport Nutrition – Chapter 16  
Lab 9 – Maximal Oxygen Consumption (VO_{2max})

Week 11: Lecture 8 – Aging, Disease Prevention and Exercise – Chapter 17  
Lab 10 – Thermoregulation During Prolonged Exercise

Week 12: Lecture 9 - Clinical Exercise Physiology – Chapter 18  
Lab 11 – Measurement of Body Composition

Week 13: Lab exam

Week 14: Final Exam Review
EVALUATION:

Mid-Term Exam: 20%
Laboratory: 40% - Lab Exam 20%; Lab Reports 20% (2 x 10%)
Final Exam: 40%
TOTAL 100%

The Mid-Term Exam will be during usual lecture time on Thursday October 11, 2012.

The Lab Exam will be held during the last lab on Tuesday November 27, 2012.

The Final Exam will be during exam week December 10, 2012 – December 19, 2012. The exact time will be determined by Keyano College.

There will be two Lab Reports assigned, each worth 10% of the final mark. They are due the following lab (one-week later) via email. Failure to submit the lab report at the start of the following lab session will result in a mark of 0% for that Lab Report. The two labs which will be used to produce the Lab Report are yet to be determined. Format, structure and marking scheme will be provided.

Other:

MOODLE 7
Go to http://ilearn.keyano.ca

This course is supported through Moodle 7. Lecture slides, readings, handouts, labs and schedule will be posted on Moodle 7.

Lectures and labs are designed to help you understand the material that will be tested. Supplemental material may be used in the course that is not in the required text. Therefore, full attendance and participation is highly recommended to ensure a proper understanding of the subject matter attained and hence, successful completion of the course. Discussions from lectures and labs are fair game for the exam.

Use of mobile/smart phones and computers is encouraged only for educational purposes. If any device is distracting to the class and/or instructor, you will be asked to refrain from using it. If this is not respected, the instructor will use their best judgement to address this situation.
GRADING SYSTEM:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Description</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>Good</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>Satisfactory</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>Pass</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0</td>
</tr>
</tbody>
</table>

Students intending to transfer to other institutions should strive for a ‘C-’ as a minimum. Transfer information on each course is available at the Alberta Council on Admission and Transfers.

Students who do not complete all the required work should not expect to pass the course. Students should consult:

http://keyano.ca/sites/default/files/academic%20regulations.pdf

IMPORTANT DATES:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 18, 2012</td>
<td>Courses dropped after this date will be designated “W”. (A withdrawal (W) is not reflected in your GPA)</td>
</tr>
<tr>
<td>October 26, 2012</td>
<td>Courses dropped after this date will be designated “WF”. (A withdrawal failure (WF) counts as a 0 in your GPA)</td>
</tr>
<tr>
<td>December 7, 2012</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>December 10-19, 2012</td>
<td>Final Exams</td>
</tr>
</tbody>
</table>

COLLEGE POLICIES

Equality, Equity and Respect
The Keyano College is committed to providing an environment of equality, equity and respect for all people within the College community. All members of this community are considered partners in developing teaching and learning contexts that are welcoming to all. Faculty, staff, and students are encouraged to use inclusive language to create a classroom atmosphere in which students' experiences and views are treated with equal respect and valued in relation to their gender, ethnic and cultural background, and sexual orientation.
Students should consult:
http://keyano.ca/sites/default/files/academic%20regulations.pdf

Plagiarism and Cheating
Every student expects to be treated and evaluated fairly in a course. Plagiarism and cheating robs everyone of this right.

No student may submit words, ideas or data of another student or person as his or her own in any writing, project, assignment, quiz, electronic presentation, exam etc. Any work used that is not the student's own must be clearly cited as belonging to someone else. There are penalties for using other's work and not citing it. The Student's Rights & Responsibilities document clearly outlines these penalties and the appeal process.

- No learner can obtain information from another student during an exam.
- No learner can bring unauthorized information (paper or electronic) into an exam or quiz.
- No student can submit work done in another course for grading in this course without the written prior approval of the course instructor.
- No student can submit copyright protected or commercially produced materials as part or all of an assignment without proper citation & permission.

Student Rights & Responsibilities
Students should consult the Keyano College Credit Calendar or online at:
Academic Calendar/Credit Calendar | Keyano College

Specialized Supports and Duty to Accommodate
Disability Support Services: Learner Assistance Program
If you have a documented disability or you think that you would benefit from some assistance from a Disabilities Counsellor, please call or visit the Disability Supports Office 780-792-5608 to book an appointment (across from the library). Services and accommodations are intended to assist you in your program of study, while maintaining the academic standards of Keyano College. We can be of assistance to you in disclosing your disability to your instructor, providing accommodations, and supporting your overall success at Keyano College.

Specialized Supports and Duty to Accommodate
Specialized Support and Duty to Accommodate are aligned with the office of Disability Support Services: Learner Assistance Program (LAP) guided by federal and provincial human rights legislation, and defined by a number of Keyano College policies. Keyano College is obligated by legislation to provide disability-related accommodations to students with identified disabilities to the point of undue hardship.
Course Outline

UNIVERSITY STUDIES

PEDS 200
Exercise Physiology
Fall, 2012

3 CREDITS
5 HOURS PER WEEK

James Ostoya, Instructor  Date

Reviewed and approved by:

Vincella Thompson, Chairperson  Date

Guy Harmer, Dean  Date