Department of Kinesiology and Health Science  
KIN 353L-020 Physiology of Exercise Lab  
SPRING 2018

Instructor: Alyssa Abreu  
Office: EDAN 108  
Credits: 1  
Office Hours: MW 11-12pm, Tuesday 9-10am  
Email: abreuam@sfasu.edu

Prerequisites: KIN 100, KIN 330, KIN 340

I. Course Description: This course examines the human physiological response to exercise and the physiological basis of movement.

II. Intended Learning Outcomes/Goals/Objectives (Program/Student Learning Outcomes):

This course links with SFA Initiative #4: Develop a learner-centered environment.

This course links with SFA’s COE Goal and Initiative #2: Prepare educators and industry professionals.

This course links with SFA Initiative #5: Create new learning opportunities through additional interdisciplinary, international, service learning, and civic engagement experiences.

Program Learning Outcomes:

1. The student will identify and analyze critical components of physical movements.
2. The student will demonstrate an understanding of basic principles of physical fitness concepts and the utilization of available technology in assessing fitness levels, performance, and physiological effects during various levels of physical stress.
3. The student will apply knowledge of principles and stages of motor development.
4. The student will demonstrate knowledge of Kinesiological principles and content.

Student Learning Outcomes:

- Student will demonstrate understanding of the biochemical cost of using and producing energy (ATP) with respect to rest and various intensities of exercise and metabolic adaptations to various forms of training. (PLO 3)
- Student will be able to explain the physiology and function of muscle, adaptations to various forms of training and practical field tests to evaluate individual status. (PLO 1 & 2)
- Student will be able to identify major components of cardiorespiratory system (i.e. heart) and explain its adaptations to various forms of training and practical field tests to evaluate individual status. (PLO 4)
- Student will be able to explain how body composition is estimated, its relationship to performance and be able to perform practical field tests to evaluate individual’s status and training methods (PLO 2).

III. Labs: Cognitive evaluation will consist of 12 laboratory assignments (120 pts total). Some labs will require physical activity; you will have to dress appropriately (i.e. sneakers and athletic clothing). All students are expected to participate.

Make Up Labs/Exams – If missing a lab, prior arrangements must be made in critical cases. If a student is absent on lab day, he/she will be earn a zero. You may not turn in a lab you were not present for. In the event of an excused absence, students will have two options: 1. Attend another lab section per approval from the instructor or 2. Make up lab during the make-up week at the end of the semester. No more than 2 labs may be made up during the make up week, 1 of which must be excused.

IV. Evaluation & Assessments: Each lab is worth a total of 10pts. The 12 lab assignments will combine to form 120 total points. An average of your scores will then be calculated from the 120 available points. Your average will then be calculated into the available lab points in your lecture class.

\[ \text{EXAMPLE: } 97 \text{ points ÷ 120 points} = 80\% \text{ in lab} \]

\[ .88 \times 50 \text{ points} = 44 \text{ points out of 50 available toward lecture} \]

***Be aware that the final grade you earn in lecture will be the same final grade that you earn for lab. Lab is only a portion of your total grade for the class, so put forth your best effort when completing the lab assignments. ***
V. Tentative Course Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/22</td>
<td>Syllabus/Conversion</td>
</tr>
<tr>
<td>2</td>
<td>01/29</td>
<td>MSC Strength/ Endurance</td>
</tr>
<tr>
<td>3</td>
<td>02/05</td>
<td>Wingate</td>
</tr>
<tr>
<td>4</td>
<td>02/12</td>
<td>RER/EPOC</td>
</tr>
<tr>
<td>5</td>
<td>02/19</td>
<td>Heart Rate Response</td>
</tr>
<tr>
<td>6</td>
<td>02/26</td>
<td>Heart Dissection</td>
</tr>
<tr>
<td>7</td>
<td>03/05</td>
<td>VO2 Max</td>
</tr>
<tr>
<td>8</td>
<td>03/12</td>
<td>SPRING BREAK- NO CLASS</td>
</tr>
<tr>
<td>9</td>
<td>03/19</td>
<td>Blood Pressure</td>
</tr>
<tr>
<td>10</td>
<td>03/26</td>
<td>ECG</td>
</tr>
<tr>
<td>11</td>
<td>04/02</td>
<td>Body Comp</td>
</tr>
<tr>
<td>12</td>
<td>04/09</td>
<td>RMR</td>
</tr>
<tr>
<td>13</td>
<td>04/16</td>
<td>MAKE UP LABS</td>
</tr>
</tbody>
</table>

**WEEKLY LAB OBJECTIVES**

1. To introduce course, cover syllabus. To discuss units of measure. To introduce abstract writing.

2. To gain experience administering MSC strength assessments. To estimate 1RM.

3. To examine the individual fuel utilization during each stage of the Bruce protocol. To observe and discuss the process of excess post-exercise oxygen consumption.

4. To observe and evaluate the absolute and relative responses of oxygen consumption (VO2) during 2 graded exercise tests. To compare the results of these exercise tests with each other.

5. To assess and evaluate anaerobic power of the subject.

6. To evaluate the HR response during and in recovery from exercise. To practice the palpation of resting, exercise, and recovery HR.

7. To practice taking blood pressure readings. To discuss methods and terminology.

8. To perform several different body composition tests. To discuss the differences between each test. To learn to properly measure height and weight.

9. Review previous lab assignments, Q&A session

10. To discuss blood flow through the heart. To examine anatomical aspects of the heart. To discuss cardiovascular terminology.

11. To perform an exercising electrocardiogram. To discuss ECG methods and terminology.

VI. Readings: No text required, but it is recommended to bring your lecture textbook.

VII. Course Evaluations:

“Near the conclusion of each semester, students in the College of Education electronically evaluate courses taken within the COE. Evaluation data is used for a variety of important purposes including: 1. Course and program improvement, planning, and accreditation; 2. Instruction evaluation purposes; and 3. Making decisions on faculty tenure, promotion, pay, and retention. As you evaluate this course, please be thoughtful, thorough, and accurate in completing the evaluation. Please know that the COE faculty is
committed to excellence in teaching and continued improvement. Therefore, your response is critical! In the College of Education, the course evaluation process has been simplified and is completed electronically through MySFA. Although the instructor will be able to view the names of students who complete the survey, all ratings and comments are confidential and anonymous, and will not be available to the instructor until after final grades are posted.

VIII. Student Ethics and Other Policy Information:

**Attendance Policy 6.7** - Attendance and participation are required and expected. As this course is designed to apply physiological theories to real world scenarios, your presence in class is essential to your understanding of these processes. University travel and legal obligations will be the only excused absences allowed (written documentation required). **No exceptions will be made for any of the above policies.**

**Students with Disabilities Policy 6.1 & 6.6** - To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004/468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations.

For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

**Academic Integrity Policy 4.1** - Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp).

**Withheld Grades Semester Grades Policy 5.5**
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Acceptable Student Behavior Policy 10.4**
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.