Department of Kinesiology and Health Science
KINE 3153L.020 Physiology of Exercise Lab
Spring 2024

Instructor: Julia Martin
Office: EDAN 108
Credits: 1

Course Time & Location: W 2:30-3:45pm EDAN 112
Office Hours: W 12:00-12:50pm, Th 2:00-3:00pm
Email: martinjn2@jacks.sfasu.edu

Prerequisites: KINE 1200, KINE 3330, KINE 3340

Course Description: KINE 3153L “Physiology of Exercise Lab” (1 credit) meets once each week in 75-minute segments for 15 weeks. Students have significant weekly reading assignments, are expected to take regular reading quizzes, and are required to analyze lab results and prepare lab reports each week. These activities average at a minimum 2 hours of work each week to adequately prepare outside of classroom hours.

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

Program Learning Outcomes:
Physical Education Teacher Education (modified, 2022) Undergraduate Kinesiology – Physical Education Teacher Education
1. The student will be prepared to pass state/national accredited certifications.
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 demonstrate an understanding of common and specialized content, and scientific and theoretical foundations for the delivery of an effective preK-12 physical education program.
4. The student will apply content and foundational knowledge to plan developmentally appropriate learning experiences aligned with local, state and/or SHAPE America’s National Standards and Grade-Level Outcomes for K-12 Physical Education through the effective use of resources, accommodations and/or modifications, technology and metacognitive strategies to address the diverse needs of all students.
5. The student will apply content and foundational knowledge to implement developmentally appropriate learning experiences aligned with local, state and/or SHAPE America’s National Standards and Grade-Level Outcomes for K-12 Physical Education through the effective use of resources, accommodations
and/or modifications, technology and metacognitive strategies to address the diverse needs of all students.

6. The student will select and implement appropriate assessments to monitor P-12 students’ progress and guide decision making related to instruction and learning.

**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)

**Labs:** Cognitive evaluation will consist of 13 laboratory assignments and 11 quizzes (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. Labs will be due at the start of class.

**Quizzes:** At the start of class, 1-5 question quizzes will be given over the lab that will be done that day. Approximately 7 minutes will be given to complete the quiz. Students are expected to have read the information about the lab prior to the quiz. If a student comes in after the 7 minutes, they will earn a 0 for the quiz that day.

**Make Up Labs/Quizzes:** If missing a lab, prior arrangements must be made in critical cases. If a student is absent on lab day, he/she will earn a zero. You may not turn in a lab you were not present for.

**Evaluation & Assessments:** Each lab is worth a total of 5pts, while each quiz will be worth 5pts. The 13 lab assignments and 11 quizzes will combine to form 120 total points. An average of your scores will then be calculated from the 120 available points. Participation is REQUIRED and is part of your grade per week. Failure to be an active participant may cause a student to lose points.

**Grades:** Total points = 120
Labs: 13 Labs worth 5 points each = 65 Points
Quizzes: 11 Quizzes worth 5 points each = 55 points
A= 120-108
B= 107-96
C= 95-84
D= 83-72
F= 71-0

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<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>1/24</td>
<td><strong>NO LAB</strong></td>
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<td>2</td>
<td>1/31</td>
<td>Syllabus/Lab#1: Conversions Quiz #1</td>
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<td>3</td>
<td>2/7</td>
<td>Lab #2: MSC Strength/ Endurance Quiz #2</td>
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<td>4</td>
<td>2/14</td>
<td>Lab #3: Wingate Quiz #3</td>
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<td>5</td>
<td>2/21</td>
<td>Lab #4&amp;5: RER/EPOC Quiz #4</td>
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<td>6</td>
<td>2/28</td>
<td>Lab # 6: RMR Quiz 5</td>
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<td>7</td>
<td>3/6</td>
<td>Lab #7: Heart Rate Response Quiz #6</td>
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<td>3/13</td>
<td><strong>SPRING BREAK</strong></td>
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<td>9</td>
<td>3/20</td>
<td>Lab #8: Heart Dissection Quiz #7</td>
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<td>10</td>
<td>3/27</td>
<td>Lab #9&amp;10: VO2 Max Quiz #8</td>
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<td>11</td>
<td>4/3</td>
<td>Lab #11: Blood Pressure Quiz #9</td>
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<td>12</td>
<td>4/10</td>
<td>Lab #12: ECG Quiz #10</td>
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<td>13</td>
<td>4/17</td>
<td>Lab #13: BodyComp Quiz #11</td>
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<tr>
<td>14</td>
<td>4/24</td>
<td>Make-ups</td>
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Cell Phones and Laptops: The use of cell phones and Laptops for anything other than taking notes or calculating formulas is strictly prohibited and may cause a student to lose points.

WEEKLY LAB OBJECTIVES
1- To introduce course, cover syllabus, discuss units of measure, and introduce abstract writing.
2- To gain experience administering MSC strength assessments and 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 two 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 discuss methods, terminology of and practice taking blood pressure readings.
8- To perform several different body composition tests and discuss the differences between each test. To learn to properly measure height and weight. Review previous lab assignments, Q&A session
9- To discuss blood flow through the heart. To examine anatomical aspects of the heart. To discuss cardiovascular terminology.
10- To discuss ECG methods and terminology. To perform an exercising electrocardiogram.

Readings: Students will be required to read the lab prior to class, however no text is required, but it is strongly recommended to bring your lecture textbook. All labs are to be turned in on Lab Sheets; they will NOT be accepted on notebook paper. All labs will be available to print off of D2L prior to meeting. Students must print labs before the start of class.

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.

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). There is no make up for missed labs. Arriving late to class and early departure is unacceptable However, in certain cases students may be able to attend a different lab section for the week with the prior approval of both lab instructors. No exceptions will be made for any of the above policies.

Institutional Absences (HOP 04-110)
• An Institutional Absence may be granted to a student who participates as a representative of the University in academic (including research), extra-
cocurricular, or athletic activities. Students will be excused for institutional purposes from otherwise required academic activity only when a valid Institutional Absence is approved by the appropriate administrative unit or official and the documentation of approval is provided to the faculty member at least five (5) days in advance.

Institutional absences will not be approved for keystone events, defined as: a special or unique assignment, test, project, experience, or other academic exercise identified by the Faculty member as critical for successful completion of standards of the class and unable to be missed. These events must be identified on the syllabus at the beginning of the semester and communicated to the students. Events added to the syllabus at a later date will not qualify for Keystone Event status. Keystone Events where the date/time is changed will no longer be considered a Keystone Event. Students should make themselves aware of any Keystone Events identified in the syllabus to ensure there are no conflicts.

For keystone events where the assignment dates vary, it is incumbent upon the students to work with their faculty member to not select a conflicting date.

More information on Institutional Absences, including how to apply, can be found at https://www.sfasu.edu/deanofstudents/student-resources/institutional-absences.

**Code of Student Conduct and Academic Integrity**

- The Code of Student Conduct and Academic Integrity (HOP 04-106) outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another
Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially. For additional information, go to https://www.sfasu.edu/docs/hops/04-106.pdf.

**Withheld Grades Semester Grades Policy (HOP policy 02-206)**

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 coursework 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 to compute the grade point average. For additional information, go to https://www.sfasu.edu/docs/hops/02-206.pdf.

**Students with Disabilities**

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 promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**Code of Ethics for the Texas Educator:**

The Texas educator shall comply with standard practices and ethical conduct toward students, professional colleagues, school officials, parents, and members of the community and shall safeguard academic freedom. The Texas educator, in maintaining the dignity of the profession, shall respect and obey the law, demonstrate personal integrity, and exemplify honesty and good moral character. The Texas educator, in exemplifying ethical relations with colleagues, shall extend just and equitable treatment to all members of the profession. The Texas educator, in accepting a position of public trust, shall measure success by the progress of each student toward realization of his or her potential as an effective citizen. The Texas educator, in fulfilling
responsibilities in the community, shall cooperate with parents and others to improve the public schools of the community. This chapter shall apply to educators and candidates for certification.

Please go to TAC 247.2 – Code of Ethics and Standard Practices for Texas Educators.

To complete Certification/Licensing Requirements in Texas related to public education and other professional settings, you will be required to:

1. Candidates must undergo a criminal history background check prior to clinical teaching and prior to employment as an educator. The public school campuses are responsible for completing the criminal background check. A person who is enrolled or planning to enroll in a State Board for Educator Certification-approved educator preparation program or planning to take a certification examination may request a preliminary criminal history evaluation letter regarding the person's potential ineligibility for certification due to a conviction or deferred adjudication for a felony or misdemeanor offense.

A Preliminary Criminal History Evaluation is a non-mandatory, non-binding evaluation of an individual’s self-reported criminal history. In addition, the agency obtains your name-based Texas criminal history information. The service is provided to the requestor for a non-refundable fee. The requestor will receive an evaluation letter by email from agency staff advising of potential ineligibility for educator certification. You are eligible to request a Preliminary Criminal History Evaluation if:

- You enrolled or planning to enroll in an educator preparation program or,
- You are planning to take a certification exam for initial educator certification, and
- You have reason to believe that you may be ineligible for educator certification due to a conviction or deferred adjudication for a felony or misdemeanor offense.

You are not eligible for a preliminary evaluation of your criminal history if you do not have a conviction or deferred adjudication for a felony or misdemeanor offense.

In addition, you must complete the fingerprinting process when you apply for certification. Participation in the evaluation does not preclude you from submitting to a national criminal history review at the time you apply for your educator certification. Your criminal history will be reviewed and you may be subject to an investigation based on that criminal history, including any information you failed to submit for evaluation.

2. Provide one of the following primary ID documents:
   - Passport
   - driver’s license, state or providence ID cards
   - a national ID card, or military ID card to take the TExES exams
   - YOU must provide legal documentation to be allowed to take these mandated examinations that are related to certification/licensing
requirements in Texas. If you do not have legal documentation, you may want to reconsider your major while at SFASU.
3. Successfully complete state mandated a fingerprint background check. If you have a history of criminal activity, you may want to reconsider your major while at SFA.

For further information, contact the Office of Assessment and Accountability at 936-468-1282 or edprep@sfasu.edu.

Other Relevant Course Information:

**Cellphone/laptop:** Cell phone use is not permitted during class; This includes texting, recording and/or picture taking. Laptops may be used for NOTE TAKING ONLY.

**Insurance:** It is strongly advised that each student carry health/accident insurance. You are NOT covered by a Departmental or University insurance policy while attending this course.

**Student Wellness and Well-Being**
SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

**On-campus Resources:**

**The Dean of Students Office** (Rusk Building, 3rd floor lobby)
[www.sfasu.edu/deanofstudents](http://www.sfasu.edu/deanofstudents)
936.468.7249
dos@sfasu.edu

**SFASU Counseling Services**
[www.sfasu.edu/counselingservices](http://www.sfasu.edu/counselingservices)

**Health and Wellness Hub “The Hub”**
Location: corner of E. College and Raguet
936-468-2401

**SFASU Human Services Counseling Clinic**- Human Services Room 202
[www.sfasu.edu/humanservices/139.asp](http://www.sfasu.edu/humanservices/139.asp)
936-468-1041

**The Health and Wellness Hub “The Hub”**
Location: corner of E. College and Raguet St.
To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:

- Health Services
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education

www.sfasu.edu/thehub
936.468.4008
thehub@sfasu.edu

**Crisis Resources:**

- Burke 24-hour crisis line 1(800) 392-8343
- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline 1(800) 273-TALK (8255)
- Crisis Text Line: Text HELLO to 741-741