I. Course Description:

Physiological basis of human movement and exercise. Prerequisites: BIOL 2301 (Anatomy & Physiology). Coerequisites: KINE 3153L (Physiology of Exercise Lab)

As an introduction to exercise physiology, this course will build on knowledge of human anatomy and physiology in regard to relevant functional systems (cardiorespiratory, neuromuscular, metabolic). Following understanding of these systems, the course describes how they are impacted by acute and chronic training (aerobic and anaerobic). Exercise in different environmental conditions (heat, cold, altitude) and different populations (age, gender, disease state) will also be explored. Overall, the course will provide a physiological basis for promotion of exercise for health and wellness.

This course will be delivered in a face-to-face format. The majority of the lecture content/notes, as well as exams, will be delivered in person during our designated class time. Quizzes and other assignments may be delivered online using D2L Brightspace.

KINE 3353 “Physiology of Exercise” (3 credits) will be delivered primarily through face to face learning. Students have significant weekly reading assignments and notes to complete each week, take two exams and a final examination, and are required to write a major class paper in which they explain comprehensively the physiological benefits of exercise. These activities average at a minimum 6 hours of work each week to adequately prepare outside of classroom hours.

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

The complete listing of the standards associated with the PLOs, SLOs, assignments, and assessments are located on the PCOE website.

This course helps to prepare competent, successful, caring and enthusiastic professionals dedicated to responsible service, leadership, and continued professional and intellectual development through the implementation of the following program and student learning outcomes.

Exercise Science 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 demonstrate and understanding of the physiological principles of exercise
4. The student will be prepared to pass nationally accredited certifications.

Physical Education Teacher Education Program Learning Outcomes
1. The Physical education candidate 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.
6. The Physical education candidate will demonstrate behaviors essential to becoming effective professionals. They will exhibit professional ethics and culturally competent practices; seek opportunities for continued professional development; and demonstrate knowledge of promotion/advocacy strategies for physical education and expanded physical activity opportunities that support the development of physically literate individuals.

**Student Learning Outcomes:**

1. Each 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.
2. Each 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.
3. Each student will be able to identify major components of Cardiorespiratory system (ie. heart) and explain adaptations to various forms of training and practical field tests to evaluate individual status.
4. Each 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.

**III. Course Assignments, Activities, Instructional Strategies, use of Technology:**

1. All students should have access to Desire to Learn (D2L) and a SFASU student email address. Assignments, lecture notes and other pertinent information will be available on D2L. Student email addresses will be used to communicate with the class and individual students on an as needed basis. Weekly announcements will be posted on D2L to outline the course activities.
2. The Remind app will also be used for reminders and announcements, especially in the event of short notice changes to the schedule. Please sign up for our class remind using the code on the first page of the syllabus.
3. Examinations: Multiple Choice, True/False, Short Answer. There will be two exams during the semester and a final exam at the end of the semester. The final exam will consist of ~80% material from section III of the course and ~20% comprehensive material. Only one attempt at each exam will be provided. Exams will be taken in class using D2L Brightspace. Students will need to bring their own device or coordinate with the instructor in advance.
4. Written Paper: Students will be required to write a mock letter to a client or their primary/secondary school board explaining the importance of exercise/physical education from a physiological/epidemiological perspective.
5. Quizzes will be delivered on D2L as listed in the course calendar. Quizzes can be attempted up to two times. Quizzes are 20 points each. The lowest 2 scores will be dropped.
6. Participation points earned from attendance/participation/completion of activities during class meetings are added to the gradebook to reduce the weight of other grades. These are not bonus because the addition of participation points changes the total points possible, but they are also not mandatory. Participation points are only beneficial never harmful.

<table>
<thead>
<tr>
<th>Assessment/Assignment</th>
<th>Program Standards SHAPE</th>
<th>CAEP Standards</th>
<th>ISTE Standards (2021)</th>
<th>InTASC Standards</th>
<th>EC-12 Educator Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1: Neuromuscular Physiology and Metabolism</td>
<td>1b</td>
<td>1.3</td>
<td>1b</td>
<td>4j, 4k, 4l, 5i, 5j</td>
<td>1.1k, 2.1k, 2.4k, 2.5k, 2.8k, 4k</td>
</tr>
</tbody>
</table>
III. Evaluation and Assessments (Grading):

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Grading Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>200</td>
</tr>
<tr>
<td>Percent</td>
<td>90-100%</td>
</tr>
<tr>
<td>Grade</td>
<td>A</td>
</tr>
<tr>
<td>Exam 2</td>
<td>200</td>
</tr>
<tr>
<td>Percent</td>
<td>80-89%</td>
</tr>
<tr>
<td>Grade</td>
<td>B</td>
</tr>
<tr>
<td>Final Exam</td>
<td>250</td>
</tr>
<tr>
<td>Percent</td>
<td>70-79%</td>
</tr>
<tr>
<td>Grade</td>
<td>C</td>
</tr>
<tr>
<td>Paper</td>
<td>150</td>
</tr>
<tr>
<td>Percent</td>
<td>60-69%</td>
</tr>
<tr>
<td>Grade</td>
<td>D</td>
</tr>
<tr>
<td>Quizzes</td>
<td>200</td>
</tr>
<tr>
<td>Percent</td>
<td>&lt;60%</td>
</tr>
<tr>
<td>Grade</td>
<td>F</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
</tr>
</tbody>
</table>

This course assumes that work submitted for a grade by students – all process work, drafts, brainstorming artifacts, final works – will be generated by the students themselves, working individually or in groups as directed by class assignment instructions. This policy indicates the following constitute violations of academic honesty: a student has another person/entity do the work of any substantive portion of a graded assignment for them, which includes purchasing work from a company, hiring a person or company to complete an assignment or exam, and/or using generative AI tools (such as ChatGPT).

IV. Tentative Course Outline/Calendar:

<table>
<thead>
<tr>
<th>Week of January 22 - 28</th>
<th>Week of March 18 - March 24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monday</strong> Intro/ Muscle</td>
<td><strong>Monday</strong> Acute CardioRes Response to Exercise</td>
</tr>
<tr>
<td><strong>Wednesday</strong> Muscle</td>
<td><strong>Wednesday</strong> Cardio Review on D2L out of class**</td>
</tr>
<tr>
<td>Read Chapter 1</td>
<td>Read Ch 9 &amp; 12</td>
</tr>
<tr>
<td>Assessment NA</td>
<td>Assessment Adapt to Exercise Quiz</td>
</tr>
<tr>
<td><strong>Week of January 29 - Feb 4</strong></td>
<td><strong>Week of March 25 - March 31</strong></td>
</tr>
<tr>
<td><strong>Monday</strong> Muscle/Nervous</td>
<td><strong>Monday</strong> Training Adaptations</td>
</tr>
<tr>
<td><strong>Wednesday</strong> Nervous</td>
<td><strong>Wednesday</strong> Cardiovascular Disease</td>
</tr>
<tr>
<td>Read Ch 3</td>
<td>Read Ch 12, 22</td>
</tr>
<tr>
<td>Assessment Muscle Quiz</td>
<td>Assessment Cardiovascular Disease Quiz</td>
</tr>
</tbody>
</table>
### Week of Feb 4 - Feb 11
- **Monday**: Metabolism
- **Wednesday**: Metabolism
- **Read**: Ch 2
- **Assessment**: Nervous Quiz

### Week of Feb 12 - Feb 18
- **Monday**: Metabolism/ Energy Expenditure
- **Wednesday**: Energy Expenditure
- **Read**: Ch 5
- **Assessment**: Metabolism Quiz

### Week of Feb 19 - Feb 25
- **Monday**: Review
- **Wednesday**: Exam 1
- **Read**:
- **Assessment**: Energy Expenditure Quiz

### Week of Feb 26 - Mar 3
- **Monday**: Cardio
- **Wednesday**: Cardio
- **Read**: Ch 7
- **Assessment**: Cardio Quiz

### Week of Mar 4 - Mar 10
- **Monday**: Respiratory
- **Wednesday**: Respiratory
- **Read**: Ch 8
- **Assessment**: Respiratory Quiz

### Week of Mar 11 - Mar 17
- **Spring Break**

### Week of Apr 1 - Apr 7
- **Monday**: Review/ Benefits of Exercise
- **Wednesday**: Exam 2
- **Read**: Review
- **Assessment**: Exercise Letter Outline Due

### Week of Apr 8 - Apr 14
- **Monday**: Resistance Training
- **Wednesday**: RT/ Endocrine system
- **Read**: Ch 4, 11
- **Assessment**: Resistance Training Quiz

### Week of Apr 15 - Apr 21
- **Monday**: Endocrine System
- **Wednesday**: Sex Differences in Training
- **Read**: Ch 18 & 21
- **Assessment**: Endocrine Quiz

### Week of Apr 22 - Apr 28
- **Monday**: Fatigue & Soreness
- **Wednesday**: Fatigue & Soreness
- **Read**: Ch 6
- **Assessment**: Fatigue & Soreness Quiz

### Week of Apr 29 - May 5
- **Monday**: Heat Illness
- **Wednesday**: Altitude/ Review
- **Read**: Ch 14 & 15
- **Assessment**: Heat & Altitude Quiz

### Week of May 6 - May 12
- **Final Exam TBD**

*Schedule is tentative and subject to change. Changes will be announced on D2L and through Remind.*

**Additional Scheduling Notes:**
- All quizzes for a given week are due by 11:59 PM CST on the date that week is listed as “Ending” unless otherwise noted. Quizzes are delivered on D2L and can be attempted at the student’s leisure.

**VI. Readings (Required and recommended—including texts, websites, articles, etc.):**

2. Access to Desire2Learn is required for quizzes, exams and other supplemental content.

3. **QClassroom Statement:** This course uses the QClassroom data management system to collect critical assessments for students who are Perkins College of Education majors (undergraduate, graduate, and doctoral) or majors in other colleges seeking educator certification through the Perkins College of Education. Support emails will come from qclassroom@sfasu.edu.

VII. Course Evaluations:

“Near the conclusion of each semester, students in the Perkins College of Education electronically evaluate courses (the teaching itself and the content/assignments) taken within the PCOE. 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 (full-time and part-time) annual evaluation processes, tenure, promotion, pay, and retention.

As you evaluate this course, please be thoughtful, thorough, and accurate in completing the evaluation. Please know that the PCOE faculty is committed to excellence in teaching and continued improvement. Therefore, your response is critical!”

In the Perkins 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 summarized data will not be available to the instructor until after final grades are posted.

VIII. Student Ethics and Policy

**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- or 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 context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

  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](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](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/](http://www.sfasu.edu/disabilityservices/).

- **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.

- **Other important course-related policies:**
  ***Other SFA policy information is found in the Handbook of Operating Procedures (HOP)***

IX: Resources

- **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
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

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

X: Additional Information Specific to Educator Preparation

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.

XI: Other Relevant Course Information: