I. Course Description:
Physiological basis of human movement and exercise. Prerequisites: BIO 2301 (Anatomy & Physiology). Corequisites: KIN 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. Finally, the course will provide a physiological basis for promotion of exercise for health and wellness.

This course will be delivered in a hybrid (online/faceto-face) format. The majority of the lecture content/notes, as well as quizzes/exams, will be completed online. Online content can be completed at the student’s own pace/time within the confines of the listed course deadlines. There will be ~9 face-to-face class meeting days throughout the semester (see schedule) at the regularly scheduled class time. Face-to-face meetings will be used for Q&A, clarifying difficult content, application of course content knowledge, active learning engagement, and discussion. On the weeks that we meet face-to-face we will only meet on the Tuesday of that week. See schedule for complete details.

KINE 3353 “Physiology of Exercise” (3 credits) meets through a combination of distance and face to face learning. Distance content will be delivered through a combination of online videos, notes, and quizzes that take at least 3 hours each week over the 15 week semester that replaces typically in-class time. Additionally, there will be ~9 face to face class meetings (75-minute segments) over the semester. Students have significant weekly reading assignments and online video notes to complete, 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.

James I. Perkins College of Education Diversity Statement is found at the following link: http://coe.sfasu.edu/about-us/

II. Intended Learning Outcomes/Goals/Objectives (Program/ Student Learning Outcomes):
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 design and implement physical education learning experiences that are developmentally appropriate, safe, and that utilize principles of effective instruction.
4. The student will demonstrate and understanding of the physiological principles of exercise
5. 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.
2. The Physical education candidate will be a physically literate individual who can demonstrate skillful performance in physical education content areas and health-enhancing levels of fitness.
3. The Physical education candidate will apply content and foundational knowledge to plan and 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.
4. The Physical education candidate will engage students in meaningful learning experiences through effective use of pedagogical skills. They will use communication, feedback, technology, and instructional and managerial skills to enhance student learning.
5. The Physical education candidate will select and implement appropriate assessments to monitor students’ progress and guide decision making related to instruction and learning.
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.
2. 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 ~50% material from section III of the course and ~50% comprehensive material.
3. 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.
### Assessment/Assignment

<table>
<thead>
<tr>
<th>Assessment/Assignment</th>
<th>Program Standards NASPE</th>
<th>CAEP Standards</th>
<th>ISTE Standards</th>
<th>InTASC Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1: Neuromuscular Physiology and Metabolism</td>
<td>1.1</td>
<td>1.3</td>
<td>1a</td>
<td>4j, 4k, 4l, 5i, 5j</td>
</tr>
<tr>
<td>Exam 2: Cardiorespiratory Physiology and Aerobic Exercise Training</td>
<td>1.1</td>
<td>1.3</td>
<td>1a</td>
<td>4j, 4k, 4l, 5i, 5j</td>
</tr>
<tr>
<td>Final Exam: Environmental Exercise Physiology, Age and Gender, Exercise and Disease Risk</td>
<td>1.1</td>
<td>1.3</td>
<td>1a</td>
<td>4j, 4k, 4l, 5i, 5j</td>
</tr>
<tr>
<td>Student Papers: Physiological support for Physical Education/Exercise</td>
<td>1.1, 6.1</td>
<td>1.3</td>
<td>1a</td>
<td>4j, 4k, 4l, 5i, 5j</td>
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### IV. Evaluation and Assessments (Grading):

#### Assessments

<table>
<thead>
<tr>
<th>Exam 1*</th>
<th>25%</th>
<th>Percent</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 2*</td>
<td>25%</td>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>Final Exam*</td>
<td>30%</td>
<td>80-89%</td>
<td>B</td>
</tr>
<tr>
<td>Paper</td>
<td>10%</td>
<td>70-79%</td>
<td>C</td>
</tr>
<tr>
<td>Participation**</td>
<td>10%</td>
<td>60-69%</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;60%</td>
<td>F</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Average quiz grade from each unit counts for 10% of that unit exam.

**Participation points earned from attendance/participation/completion of activities during the live class meetings.
V. Tentative Course Outline/Calendar:

<table>
<thead>
<tr>
<th>Week</th>
<th>Beginning</th>
<th>Ending</th>
<th>Unit</th>
<th>F2F?</th>
<th>Associated Reading</th>
<th>Quizzes/Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/23 (Mo)</td>
<td>8/29 (Su)</td>
<td>1.1</td>
<td>No</td>
<td>Ch. 1</td>
<td>-Muscle Function</td>
</tr>
<tr>
<td>2</td>
<td>8/30 (Mo)</td>
<td>9/5 (Su)</td>
<td>1.1</td>
<td>No</td>
<td>Ch. 1</td>
<td>-Muscle Function</td>
</tr>
<tr>
<td>3</td>
<td>9/6 (Mo)</td>
<td>9/12 (Su)</td>
<td>1.2</td>
<td>Yes (9/7)</td>
<td>Ch. 2</td>
<td>-Metabolism I-II</td>
</tr>
<tr>
<td>4</td>
<td>9/13 (Mo)</td>
<td>9/19 (Su)</td>
<td>1.3</td>
<td>No</td>
<td>Ch. 3-4</td>
<td>-Nervous System -Endocrine System</td>
</tr>
<tr>
<td>5</td>
<td>9/20 (Mo)</td>
<td>9/26 (Su)</td>
<td>1.4</td>
<td>Yes (9/21)</td>
<td>Ch. 5</td>
<td>-Energy Expenditure -Fatigue/Soreness</td>
</tr>
<tr>
<td>6</td>
<td>9/27 (Mo)</td>
<td>9/30 (Th)</td>
<td>1.5</td>
<td>Yes (9/28)</td>
<td>Ch. 10</td>
<td>-Resistance Adaptations</td>
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</table>

**Unit 1 Exam – Available 10/1 (Fr) – 10/3 (Su)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Beginning</th>
<th>Ending</th>
<th>Unit</th>
<th>F2F?</th>
<th>Associated Reading</th>
<th>Quizzes/Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>10/4 (Mo)</td>
<td>10/10 (Su)</td>
<td>2.1</td>
<td>No</td>
<td>Ch. 5-6</td>
<td>-Endurance Performance -Cardiovascular I</td>
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<tr>
<td>8</td>
<td>10/11 (Mo)</td>
<td>10/17 (Su)</td>
<td>2.2</td>
<td>Yes (10/12)</td>
<td>Ch. 6, 8</td>
<td>-Cardiovascular II</td>
</tr>
<tr>
<td>9</td>
<td>10/18 (Mo)</td>
<td>10/24 (Su)</td>
<td>2.3</td>
<td>No</td>
<td>Ch. 6, 8</td>
<td>-Cardiovascular III</td>
</tr>
<tr>
<td>10</td>
<td>10/25 (Mo)</td>
<td>10/31 (Su)</td>
<td>2.4</td>
<td>Yes (10/26)</td>
<td>Ch. 7</td>
<td>-Pulmonary I-II</td>
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<tr>
<td>11</td>
<td>11/1 (Mo)</td>
<td>11/4 (Th)</td>
<td>2.5</td>
<td>Yes (11/2)</td>
<td>Ch. 11</td>
<td>-Endurance Adaptations</td>
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</table>

**Unit 2 Exam – Available 11/5 (Fr) – 11/7 (Su)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Beginning</th>
<th>Ending</th>
<th>Unit</th>
<th>F2F?</th>
<th>Associated Reading</th>
<th>Quizzes/Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>11/8 (Mo)</td>
<td>11/14 (Su)</td>
<td>3.1</td>
<td>Yes (11/9)</td>
<td>Ch. 21</td>
<td>-CVD</td>
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<tr>
<td>13</td>
<td>11/15 (Mo)</td>
<td>11/21 (Su)</td>
<td>3.2</td>
<td>Yes (11/16)</td>
<td>Ch. 22</td>
<td>-Diabetes -Obesity</td>
</tr>
</tbody>
</table>

**Thanksgiving Break – No Class (11/22-11/28)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Beginning</th>
<th>Ending</th>
<th>Unit</th>
<th>F2F?</th>
<th>Associated Reading</th>
<th>Quizzes/Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>11/29 (Mo)</td>
<td>12/5 (Su)</td>
<td>3.3</td>
<td>Yes (11/30)</td>
<td>Ch. 12-13</td>
<td>-Heat -Altitude</td>
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</tbody>
</table>

**Papers Due – 12/5 (Su)**

**Final Exam (Comprehensive) – Available 12/7 (Tu)**

*Schedule is tentative and subject to change*

Additional Scheduling Notes:
- Each week you will watch the videos online and fill in the notes for the assigned unit/content prior to taking the quizzes
- All quizzes for a given week are due by 11:59 PM CST on the date that week is listed as “Ending”. Note that on weeks where an exam is scheduled, quizzes are due on Thursdays and not Sundays to allow for feedback prior to the unit exam opening.
- Exams are only available on the listed dates, but you are welcome to work ahead on other course content and quizzes
- Face to Face (F2F) class meetings will only be held on Tuesdays the weeks indicated in the schedule.
- F2F sessions will count towards participation points in the course. If a student is unable to attend their F2F meetings for an excused absence, alternative content will need to be completed to earn the allotted points.

VI. Readings (Required and Recommended – including texts, websites, articles, etc.):
2. Access to Desire2Learn to download class lectures and handouts – required to print or access electronically to fill in the notes when watching lectures online.
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 PCOE faculty is committed to excellence in teaching and continued improvement.

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 will not be available to the instructor until after final grades are posted.

VIII. Student Ethics and Other Policy Information: Found at http://www.sfasu.edu/policies/

Class Attendance and Excused Absence: Policy 6.7

Regular, punctual attendance, documented participation, and, if indicated in the syllabus, submission of completed assignments are expected at all classes, laboratories, and other activities for which the student is registered. Based on university policy, failure of students to adhere to these requirements shall influence the course grade, financial assistance, and/or enrollment status. The instructor shall maintain an accurate record of each student’s attendance and participation as well as note this information in required reports (including the first 12 day attendance report) and in determining final grades. Students may be excused from attendance for reasons such as health, family emergencies, or student participation in approved university-sponsored events. However, students are responsible for notifying their instructors in advance, when possible, for excusable absences. Whether absences are excused or unexcused, a student is still responsible for all course content and assignments. Students with accepted excuses may be permitted to make up work for up to three weeks of absences during a semester or one week of a summer term, depending on the nature of the missed work. Make-up work must be completed as soon as possible after returning from an absence.

Academic Accommodation for Students with Disabilities: Policy 6.1 and 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, 936-468-3004 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/

Student Academic Dishonesty: Policy 4.1

Abiding by university policy on academic integrity is a responsibility of all university faculty and students. Faculty members must promote the components of academic integrity in their instruction, and course syllabi are required to provide information about penalties for cheating and plagiarism, as well as the appeal process.

Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to:
- using or attempting to use unauthorized materials on any class assignment or exam;
- falsifying or inventing of any information, including citations, on an assignment;
- 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 one’s own. Examples of plagiarism include, but are not limited to:
- submitting an assignment as one’s own work when it is at least partly the work of another person;
- submitting a work that has been purchased or otherwise obtained from the Internet or another source;
- incorporating the words or ideas of an author into one’s paper or presentation without giving the author credit.

**Penalties for Academic Dishonesty**
Penalties may include, but are not limited to, reprimand, no credit for the assignment or exam, re-submission of the work, make-up exam, failure of the course, or expulsion from the university.

**Student Appeals**
A student who wishes to appeal decisions related to academic dishonesty should follow procedures outlined in Academic Appeals by Students (6.3).

**Withheld Grades: Policy 5.5**
At the discretion of the instructor of record and with the approval of the academic unit head, 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, except as allowed through policy [i.e., Active Military Service (6.14)]. If students register for the same course in future semesters, the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Student Code of Conduct: Policy 10.4**
Interference or disruption of students, faculty, administration, staff, the educational mission, or routine operations of the university is prohibited. Such activity includes, but is not limited to, behavior in a classroom or instructional program that interferes with the instructor or presenter’s ability to conduct the class or program, or the ability of others to profit from the class or program. To remain in the vicinity of activity that is disrupting normal university functions when requested to leave by a university official is prohibited. Bystanders, if their presence incites or adds to the disruption, as well as more active participants in the disruptive activity, may be in violation of this policy as well. Engaging in physical violence of any nature against any person. This includes fighting; assaulting; battering; using a knife, gun, or other weapon; or acting in a manner that threatens or endangers the physical health or safety of any person or causes a reasonable apprehension of such harm.

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 at SFA.

SFASU values students’ mental health and the role it plays in academic and overall student success. 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:**
SFASU Counseling Services
www.sfasu.edu/counselingservices
3rd Floor Rusk Building
936-468-2401

SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp
Human Services Room 202
KINESIOLOGY AND HEALTH SCIENCE DEPARTMENT
KINE 3353.004 Physiology of Exercise
Fall 2021

936-468-1041

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

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.


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. Additional information can be found at https://tea.texas.gov/Texas_Educators/Investigations/Preliminary_Criminal_History_Evaluation-FAQs/.

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 (additional information available at http://www.tx.nesinc.com/PageView.aspx?f=GEN_Tests.html. 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 SFASU.

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