Course Title and Number: The Science of Basic Health and Fitness KINE 120 – 1 credit
Term: Fall 2014
Meeting Times: MW 8:00-8:50
Location: COLS 121

Course Description: A general overview of the human body. Scientific fundamentals of stress, fitness, nutrition, disease, and drug use. Interdisciplinary focus on wellness and longevity. Integrated physical activity experiences centering on principles and applications of the scientific basis of conditioning. Not open to students who have taken KINE 223.

Prerequisites: None. Course uses basic biology, chemistry, & physics concepts.

Course Content: 50 minutes of Lecture and 50 minutes of Application each week (1 credit course)

Learning Outcomes: By the end of the semester, the student should be able to:

- Recognize the outcome of healthy and unhealthy behaviors on the human body.
- Discuss the impact of wellness choices on the individual and society.
- Demonstrate principles of training and explain how science forms the basis of those principles.
- Diagnose common problems with training methods and offer feedback concerning safety and technique.
- Communicate and work effectively with team members in a fitness setting.
- Describe basic scientific principles of health and disease and their implication on the human experience and the physical world.
- Explore the scientific method by discussing current research in health & conditioning.
- Generate discussion regarding a current health recommendation.
- Apply critical thinking skills to analyze and evaluate health recommendations for the natural phenomena of longevity and disease.
- Incorporate the scientific method in a fitness experiment (construct a scientific hypothesis, identify a testable prediction, collect & process data, analyze data, and evaluate the results).

Class Requirements

Class Activities (10 points)
Participate in discussion, polling, application activities, & fitness training.
Research Analysis (15 points)
Identify a controversial health recommendation. Analyze current scientific research and examine the use of the scientific method. Provide a 250 word critique.

Fitness Experiment (15 points)
Examine how performance is assessed and construct a hypothesis about the fitness levels of a 199 running class at the beginning of the semester. Collect 1.5 mile run data at the start of the semester. Process the data. Run statistical analysis. Look at the data distribution and how it compares to the average population. Evaluate the results.

Movement Analysis (15 points)
Demonstrate a training method. Analyze the movement through video and offer feedback concerning safety and technique.

Assessment – Principles of Training (15 points)
Questions cover training methods, principles of training, and how science forms the basis of those principles.

Assessment 1 – Current Health Topics (10 points)
Questions cover the scientific method, the wellness continuum, behavior change strategies, scientific principles of fitness training, hypokinetic conditions, nutrition, weight management, complementary & alternative medicine and its impact on the human experience.

Assessment 2 – Current Health Topics (20 points)
Questions primarily focus on scientific principles of human disease, reproduction, pregnancy, sexually transmitted infections and drug use on the human body and its influence on the human experience. Additional questions cover key concepts from the semester.

Grading Scale
90-100 = A
80-89 = B
70-79 = C
60-69 = D
Below 60 = F

Academic Integrity
For additional information please visit: http://aggiehonors.tamu.edu

"An Aggie does not lie, cheat, or steal, or tolerate those who do."

Americans with Disabilities Act (ADA)
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu
ATTENTION STUDENTS:
1. It is the responsibility of the student to inform his/her instructor if they have a condition that may impair or influence participation in an activity class (e.g. physical handicap, use of medication, etc.).
2. Should you become unable to participate in or complete the skill evaluation in this activity class, alternative methods of evaluation may be provided at the instructor’s discretion.
3. The courses in which you have elected to participate are either required as part of your major or elected. Regardless of the case, you must realize that there is a certain assumption of risk, which you engender when you participate in activity classes such as these. You must be aware of the assumption.

ATTENDANCE POLICY
Attendance is a critical component of all KINESIOLOGY classes and is essential to learning a skill. Additionally due to the skill progressions found in teaching activities, it is crucial, for safety reasons, to require regular attendance.

For classes that meet two times a week for the full semester:
A student shall be allowed 2 unexcused absences without penalty. For each unexcused absense beyond the first two unexcused absences, 15 points will be deducted from the final grade.

PLEASE NOTE: A student will automatically fail upon receiving the 4th unexcused absence. Excused absences, as defined in Rule 7 of the Texas A&M University Student Rules http://student-rules.tamu.edu/rule07 will not result in any point deduction; however, written documentation will be required to receive an excused absence.

One point will be deducted from the final grade for each tardy up to 10 minutes. After 10 minutes, the student is considered absent.

Updated 04/13
Sample of KINE 123 (1 credit) Course Topics, Calendar of Activities, & Major Assignments


<table>
<thead>
<tr>
<th>Lecture Topic / Conditioning Topic</th>
<th>Assigned Reading</th>
<th>Applied Skill</th>
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| **Week 1**  
*Lecture*: Scientific Inquiry  
*Conditioning*: Weight Room Orientation | Ch. 1 Bounds et al.  
Ch. 1-3 Cissik, J. |             |
| **Week 2**  
*Lecture*: Wellness Continuum  
*Conditioning*: Lower Body | Ch. 2 Bounds et al.  
Ch. 4-5 &10 Cissik, J. | Workout: Lower Body  
Scientific Method: create a hypothesis |
| **Week 3**  
*Lecture*: Longevity and Stress  
*Conditioning*: Chest & Triceps  
*Research Analysis* | Ch. 3 Bounds et al.  
Ch. 6&9 Cissik, J. | Workout: Chest & Triceps  
Scientific Method: Collect data |
| **Week 4**  
*Lecture*: Cardiovascular Conditioning  
*Conditioning*: Shoulders | Ch. 8 Cissik, J. | Workout: Shoulders |
| **Week 5**  
*Lecture*: Muscular Conditioning & Flexibility  
*Conditioning*: Back & Biceps  
*Assessment – Principles of Training* | Ch. 7 Cissik, J. | Workout: Back & Biceps  
Scientific Method: Process data |
| **Week 6**  
*Lecture*: Hypokinetic Conditions & Complementary and Alternative Medicine  
*Conditioning*: Push-Pull Design | Ch. 4 Bounds et al. | Workout: Push-Pull  
Scientific Method: Analyze data & evaluate the results |
| **Week 7**  
*Lecture*: Nutrition Fundamentals & Weight Management  
*Conditioning*: Pyramid Design – light to heavy | Ch. 5 Bounds et al. | Workout: Pyramid (light to heavy) |
| **Week 8**  
*Assessment 1 – Current Health Topics*  
*Conditioning*: Pyramid Design – heavy to light | Ch. 6 Bounds et al. | Workout: Pyramid (heavy to light) |
| **Week 9**  
*Lecture*: Psychoactive Drugs – Alcohol  
*Conditioning*: Body Weight Design | Ch. 9 Bounds et al. | Workout: Body Weight |
| **Week 10**  
*Lecture*: Psychoactive Drugs – Nicotine, Prescription & Illicit  
*Conditioning*: Endurance | Ch. 9 Bounds et al. | Workout: Endurance |
| **Week 11**  
*Lecture*: Cancer  
*Conditioning*: Power | Ch. 11 Bounds et al. | Workout: Power |
| Week 12 | Lecture: Reproduction & Pregnancy  
          | **Conditioning:** Movement Analysis | Ch. 8 Bounds et al. | Workout: Skill Analysis |
|--------|-----------------------------------|----------------------|---------------------|
| Week 13 | Lecture: Sexually Transmitted Infections  
          | **Conditioning:** Circuit Design | Ch. 8 Bounds et al. | Workout: Circuit |
| Week 14 | **Assessment 2 — Current Health Topics**  
          | **Conditioning:** Supersets | Ch. 1-9 & 11 Bounds et al. | Workout: Supersets |