SAM HOUSTON STATE UNIVERSITY
Department of Kinesiology

KINE 5396 – Training the Aerobic and Anaerobic Athlete

Instructor: Robert Oviatt

Office:
Phone: 509 432-6362
E-Mail: roviatt@gmail.com

- See textbook link on Blackboard. Text are not required
- TEXT & READINGS: McArdle, Katch and Katch, Exercise Physiology, Nutrition, and Human Performance, 7th edition, Lippincott, Williams and Wilkins.
  ASCM Foundations of Strength Training and Conditioning

*Not Required! I use these books as a resource and they would be a good resource for you if you plan to work in this area.

COURSE OBJECTIVES

This course is designed to provide the student with the knowledge necessary to understand the physiological processes involved during exercise. These processes will be analyzed from the systems level as well as the cellular level. With this information, teachers, coaches, and exercise specialists can more effectively plan training programs, evaluate current practices related to different facts of conditioning and can conduct meaningful investigations which seek answers to questions which arise within the field.

Upon completion of this course, students will be able to:

1. Read and evaluate research in the area of physiology of exercise.

2. Understand the ATP-PC, lactic acid, and O2 energy systems of the body as they relate to ATP production, maintenance of ATP by fuel utilization and restoration.

3. Understand physiological factors related to overtraining and detraining.

4. Understand the measurement of energy, work, and power.

5. Understand the cardiovascular system response to exercise.

6. Understand the concept of maximal oxygen consumption, anaerobic threshold and the measurement of each.

7. Understand the systems of energy delivery and utilization.

8. Understand and explain the biomechanics of various sport movements.

9. Understand how muscle fiber type relates to athletic performance.

COURSE FORMAT

This is an on-line course which will require students to complete a weekly reading assignment and answer a series of questions over readings. In addition, students will read research articles, write reviews. The course will review basic concepts of exercise physiology and present greater depth of selected topics. Review and discussion of current research will occur.

COURSE EVALUATION

1. Test: 4 unit exams – each exam is worth 50 points
2. Article reviews: 15 article reviews worth 5 points each
3. Blackboard assignments (questions and definitions) and Quizzes: 100 points.
4. Research paper: Individual research paper. Paper worth 75 points.

EVALUATION

405-450 = A
360-404 = B
315-359 = C
Below 315=F

ASSIGNMENTS

Assignments must be completed by the deadline date. Late assignment will not be accepted without a legitimate reason.