Eastern Illinois University

Department of Kinesiology and Sports Studies

KSS 4340 – Exercise Physiology Online - 3 credit hours
Syllabus for Spring 2018

Instructor: Jake Emmett, Ph.D.

Email: D2L email (daytime) or jemmett@eiu.edu (weekends and evenings)

Office hours: By appointment.

Catalog Course Description: The course is designed to provide the prospective physical educator and paramedical personnel with an understanding of the physiological factors which affect human performance. (Prerequisites include BIO 2001, KSS 1500 and KSS 2440.)

Learning Objectives:
1. Develop a knowledge of the structure and function of the neuromuscular system
2. Demonstrate an understanding of how the neuromuscular systems responds during acute exercise
3. Demonstrate an understanding of how the neuromuscular systems adapts to chronic exercise
4. Develop a knowledge of the structure and function of the cardiopulmonary system
5. Demonstrate an understanding of how the CP systems responds during acute exercise
6. Demonstrate an understanding of how the CP systems adapts to chronic exercise
7. Develop a knowledge of the basic concepts of bioenergetics.
8. Demonstrate an understanding of how bioenergetics is altered by acute exercise
9. Demonstrate an understanding of how the bioenergetics adapt to chronic exercise
10. Evaluate the influence of various dietary factors on acute exercise performance.
11. Develop an understanding of the various means for assessing body composition.
12. Understand the impact of chronic exercise on body composition.

Course Material:

Textbook - Kenney, Willmore and Costill, (2015) *Physiology of Sport and Exercise, 6th ed.* Human Kinetics

Course Outline:
1. **Module 1 -** Neuromuscular Function (Chapters 3 and 1)
    a. Neural function
    b. Muscle structure and contraction
    c. Responses to the neuromuscular system during acute exercise
    d. Adaptations to the neuromuscular system from chronic exercise training.
2. Module 2 - Exercise Metabolism (Chapters 2 and 5).
    a. ATP and Phosphocreatine
    b. Glycolysis

      c. Aerobic metabolism

      d. Exercise Metabolism During Acute Exercise

      e. Measurement of Exercise Metabolism

      f. Metabolic adaptations from chronic exercise training

3. Module 3 - Cardiopulmonary Function (Chapters 6-8).

      a. Cardiovascular function

      b. Cardiovascular response during acute exercise.

      c. Adaptations to the cardiovascular system from chronic exercise training

      d. The pulmonary system and exercise

4. Module 4 - Body Composition and Exercise Nutrition (Chapter 15)

      a. Body composition

      b. Weight loss and weight gain

      c. Carbohydrate, protein and exercise

      d. Vitamins, minerals and exercise

Assignments:

- Exams (50 points) – available online at the end of each module. Exams will only be available on the day(s) and times indicated on D2L.
- Assignments (5-10 points). All assignments are due before 11:30 p.m. on the day indicated.
- Discussions (20 points per module). Four discussions topics will be posted during each module (approximately 1 per week). Full credit requires two responses to other threads for each discussion topic (2 x 4 = 8 total responses per module as a minimum at 1 points each) and 1 original thread (6 points) to at least one of the discussion topics with at least 3 follow-up responses (2 points each0 to responses within your thread. Full credit will be given to responses and threads that provide substance (i.e. if you agree or disagree with a responses and state why, add additional information or insights, etc.

Grading Policy:

    A = 90-100%

    B = 80-89%

    C = 70-79%

    D = 60-69%

    F < 60%

Requirements and Online Assistance

1. All course content and class activities will be in D2L, http://www.eiu.edu/d2l. Self-help tutorials for D2L are available in the D2L Student Orientation course (login required.)

2. Students must have access to the Internet using a laptop or desktop computer.

3. Students are responsible for having a backup plan if the primary computer crashes and/or Internet service fails.

4. Mobile devices can be used but are not recommended for timed online exams or quizzes.

5. Students must know how to download files and have the ability to install software. Students must have Adobe Acrobat Reader (free download) installed on the computer. Microsoft Word is also required and is available free through Office 365 via EIU Panthermail. Tutorials for using Word and other software programs are available at http://www.eiu.edu/lynda (login required.)

6. Students must be able to

    1. download, edit and save Power Point, Word, and PDF files.

    2. email using attachments

    3. navigate D2L

7. Check D2L regularly (at least 3 times a week) for changes, additions, and/or updates to content, assignments, etc.

8. When taking online exams: 1. use a relatively new computer with a fast internet connection; 2. restart the computer before you begin; and 3. do not wait until the last minutes to being exams.

9. If you need assistance with D2L, call D2L Support toll free at 1-877-325-7778. Support is available 24 hours a day, seven days a week.

10. For technical questions regarding other software, hardware, network issues, EIU NetID/password, or Panthermail, contact the ITS Helpdesk at 217-581-4357 during regular business hours or submit a help ticket at https://techsupport.eiu.edu/.

11. If you have a question regarding course content, contact the instructor via D2L email or Panthermail.

Online Course Etiquette

1. In an online course, most communication is done through written messages either in private posts or public discussions. It is important that students in online courses be especially sensitive to how messages and sentiment are communicated and received.

2. *Remember you are communicating with real people.*

3. Students and instructors in your course have feelings, lives, jobs, families and a myriad of other issues that you may know little about. Once you have finished writing something, and before you send it, re-read it looking at your words from someone else's perspective. How would they see it? Could it be misinterpreted? Could you rephrase to make it clearer or more on topic?

4. *Write clearly & professionally.*

5. In any course-related communication (emails, chats, discussions), use standard proper English with correct grammar. Using slang, errors in mechanics, and shortcuts maybe difficult for others to understand. Avoid ALL CAPS, bolding and underlining. It could be misinterpreted. Avoid offensive language. Also make sure to sign your name to any post.

General Class Information:

1. The exception for each module is that students will; 1) watch the video lectures and take good notes, 2) review the textbook material that covers the same content as the video lectures, 3) review personal notes along with the reading material and presentation slides, 3) complete assignments and discussions, and 4) complete exam.

2. Past experience shows that the students who check D2L most frequently do the best in this online course. It's recommended that you schedule at least 1 hour, 3 days a week just to log into D2L to assess your progress in the class, contribute to discussion topics and to watch the video lectures. Additional time will be needed to complete assignments and to study and review course material in preparation for the exams.

3. If necessary, schedule reminders and class assignments deadlines into you phone or tablet. Late assignments will not be accepted.

4. Questions on the exams will come from the content covered in the video lectures. Use the power point files as study guides and the textbook as a secondary source of information.

5. If you can't access a file directly through D2L, you'll need to download the file and open it up separately.

6. Remember that the instructor may not be available to respond to emails and other forms of communication 24 hours a day. If there is an emergency, email the instructor and the matter will be dealt with as soon as possible and in a fair manner and considerate manner.

7. Students are expected to maintain principles of academic integrity and conduct as defined in EIU's Code of Conduct. Violations will be reported to the Office of Student Standards. Cheating, plagiarism, and other forms of academic misconduct will not be tolerated. As a student, you have a personal responsibility to maintain high standards of academic conduct to preserve academic integrity. Academic misconduct will result in zero points for the assignment and appropriate disciplinary action, according to university guidelines.

8. Cheating in this course includes, but is not limited to:

   • Sharing information during a test, quiz or other assessment

   • Using notes, answer keys or other materials without instructor permission

   • Taking a test, quiz or doing homework in place of another student, OR asking someone to take a test, quiz or do homework

   • Submitting the same paper for multiple classes without permission

   • Taking credit for work that was not your own

   • Not citing a source where material originated

   • Lying to protect yourself or another student who has cheated

9. If you have a documented disability and wish to receive academic accommodations, please contact the Coordinator of the Office of Disability Services (581-6583) as soon as possible.

10. Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Student Success Center provides individualized consultations. To make an appointment, call 217-581-6696, or go to 9th Street Hall, Room 1302.