



The University of Texas at El Paso  
College of Health Sciences  
Department of Kinesiology  
Course: KIN 5372; Advanced Exercise Physiology  
Fall 2018



**INSTRUCTOR:** Sudip Bajpeyi, PhD  
**CLASS TIME:** Monday 3:30 PM – 6:20PM (HSSN 136)  
**OFFICE HOURS:** Email to make an appointment  
Michelle Galvan, Teaching Assistant (HSSN 448)  
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**IMPORTANT DEADLINES:**

**Required**

- Research topic for presentation and paper (Blackboard): 9/10/18
- Uploading Presentation on Blackboard: 10 AM – The day of your presentation.
- Learning Objectives/Questions: 5 PM – Two (2) days before your scheduled presentation.
- Research Paper: 11/19/18
- Peer critique: 11/28/18

**Optional**

*Meeting these deadlines are optional. However, It is strongly recommended that you meet these deadline in order to have the opportunity of receiving feedback from your peer and instructor to improve the quality of your assignment.*

- 9/17/18: Outline of your research presentation (use blackboard blog) – encouraged to discuss on blackboard blog
- 9/27/17: Writing sample for research paper (a paragraph/page, submit on blackboard)
- 11/05/17: Near final draft of research paper (if you meet this deadline you will receive peer feedback and be able to work on the feedback and submit your final draft)
- 11/18/17: Peer feedback due (if the near final draft was submitted)

**COURSE OBJECTIVE:** The objective of the course will be to review the basics of muscle, cardiovascular and endocrine physiology and study the physiological adaptations to acute and chronic exercise training. We will apply this knowledge to explore areas such as athletic performance, weight management, metabolic diseases, aging etc. throughout the semester.

**COURSE TEXT:** McArdle, WD, FI Katch, and VL Katch. Exercise Physiology: Energy, Nutrition, and Human Performance. Philadelphia: Lea & Febiger. Eighth Edition.

## EVALUATION OF STUDENTS

Quizzes	15%
Exam #1	15%
Exam #2	15%
Exam #3	15%
Research Paper - Presentation	15%
- Peer Critique	10%
- Paper	15%

## GRADING SCALE

A = 90-100%
B = 80-89.9%
C = 70-79.9%
D = 60-69.9%
F = below 60%

## EXAMS AND QUIZZES

You will be tested on the materials presented in the class in the form of lectures, journal articles, and discussions in class. Each student **MUST** complete quizzes and exams during the designated class period. Students will not be allowed to make-up a missed quiz or test without prior arrangement made in case of emergency. Quizzes will be given unannounced throughout the semester. If you come late/leave early – you will not be allowed to make up for the quiz.

## INSTRUCTIONS FOR RESEARCH PRESENTATION

Each student will perform a presentation lasting a minimum of 30-minutes on the topic chosen. All students are expected to participate in discussion and give feedback after the presentation. Your presentation should include **at least three key original articles** for a passing grade (C) relevant to your topic (you are expected to do a thorough literature search). The goal of your presentation is to discuss relevant original articles to make evidence based summary/conclusion. You are responsible for creating your presentation. Presentations should include the following:

1. **Introduction and Rationale:** Background, General overview about the topic, relevant body of scientific literature leading to the purpose of the study. **(25 points)**
2. **Review of literature:** You will primarily discuss the data from original articles you have reviewed. Your goal should be organizing relevant data to make clear conclusions. Discuss study design and methods briefly when relevant. Be able to clearly discuss data from tables/figures **(40 points)**
3. **Summary/Conclusion:** Your summary/conclusion should be based on the data you have presented. Critique any methods/results to validate your position on this topic. **(5 points)**
4. **Relevance** of the materials chosen: You are expected to choose your articles carefully to demonstrate your ability to do a thorough literature search and present the most relevant materials to the class. **(5 points)**
5. **Audiovisual materials/Slides:** Clarity and appropriate use of figures, tables, references etc. **(5 points)**
6. **Ability to answer questions:** Your ability to communicate with your audience after your presentation. A thorough understanding in your topic is expected **(10 points)**
7. **Learning Objectives/Test Question quality and on time submission (*due 5pm two days before your scheduled presentation*):** You will be required to prepare at least 10 questions from your chosen topic for the class. Your test questions should be in line with overall learning outcome of your topic/presentation. You will be graded for the quality of your test questions (and answer key), whether you submitted those questions before deadline and whether you were able to clearly indicate the answer of those questions during presentations. **(10 points)**

*p.s. Student generated questions are subject to review by professor and does not*

*guarantee to be used on the exam.*

## **RESEARCH PAPER**

The research paper will test your ability to gather pertinent information about a topic of your choice (relevant to course description) and then express your interpretation on paper. All papers must be typed, double-spaced using either times new roman 12pt or Arial 11pt font. The paper should contain a title page, a brief statement of your position on the topic, a review of literature that supports your view, a review of literature that is against your view (depending on topic), conclusions, and bibliography. Recommended length for the paper is 8-10 pages of text (not including cover page, tables, figures, and references). You are encouraged to focus on concise scientific writing following the format of published review articles (will be further discussed when you bring your writing sample to class). The paper should be structured in a clear and logical format using headings and subheadings to separate subject matter. You are required to use a **minimum of 10 scientific original journal articles** (Primary Sources) directly related to your topic. ALL references must be properly cited in the text and in the references section. References should be formatted according to the style outlined by the American Psychological Association (APA) (formatting according to relevant journals such as Diabetes, JCEM etc. **using endnote is acceptable and recommended**). Check course outline for deadlines on paper presentation and submission. It is the student's responsibility to develop a research topic, identify relevant research articles and discuss their topic with the course instructor prior to the research topic deadline (**provided in class schedule**). This paper should be an original work and MUST NOT overlap or replicate any other papers or assignments from other courses.

**RESEARCH PAPERS WILL NOT BE ACCEPTED AFTER THE DUE DATES.**

**First draft of research paper** is due **~2 weeks** before the final draft submission deadline (see specific deadline below). A "near final version" is encouraged from students in order to help with meaningful feedback from peer and instructor that should be incorporated in final version of your research paper.

### **Rubric For Research Paper**

Research paper should follow the general structure of a review article. Few examples of the review articles will be shared as example.

- 1. Introduction** – Relevant background information leading to the purpose of the research question/topic. You should discuss the basic relevant concepts **(30 points)**
- 2. Review of Literature** – Review the literature relevant to your research question. You should discuss original research articles in a logical manner leading to a better understanding of the research topic/question. This section should primary focus on findings from the articles you have chosen to discuss. **(30 points)**
- 3. Discussion/Position** – Summarize the data you discussed in previous section to make a logical conclusion. Here you should discuss the reasons you take a position in certain direction. For example if your literature search reveals contradictory results on a certain topic, you should discuss why you are supporting/opposing/cannot make a decision based on the literature you have reviewed. You will be evaluated for your critical thinking and ability to make evidence based conclusions **(25 points)**.

**Relevance of references** - Rather than the number of article cited, grading will focus on relevance and thoroughness **(15 points)**

### **Instructions For Peer Critique**

Each student will critique a research paper, submitted by your fellow classmate. You are expected to grade the paper following the same rubric that will be used to grade the presentation by the instructor. *Critique is **due within a week of research paper submission** (you are expected to work on the first draft of the paper depending on whether the student consider this a “near final” version).* Your grade for critique will be based on your thoroughness and constructive criticism/feedback relevant to the topic of the presentation.

**NOTE:**

- Each student **MUST** take all exams.
- Each exam **MUST** be taken at the designated time unless arrangements are made in advance.
- Each student will review the scientific literature and write a research paper focusing on relevant areas of Exercise Physiology. ***A topic must be selected by the student and approved by the instructor before the September 10, 2016 (see course outline).*** Additionally, each student will give an oral presentation of his or her paper.

**SCHOLASTIC HONESTY AND DISCIPLINE**

"Scholastic dishonesty--which includes the attempt of any student to present the work of another as his or her own, or any work which s(he) has not honestly performed, or attempting to pass any examination by improper means is a serious offense and will subject the student to disciplinary action. The aiding and abetting of a student in any dishonesty is held to be an equally serious offense. All alleged acts of scholastic dishonesty will be reported to the Dean of Students for disposition. It is the Dean of Students' responsibility to investigate each allegation, dismiss the allegation, or proceed with disciplinary action in a manner, which provides the accused student his or her rights of due process.

**PROFESSIONAL CONDUCT**

During this course you will be expected to deal with your subject area, your colleagues, and yourself as a professional. You are expected to approach learning with offensive strategies rather than with defense and evasion. Demonstrate pride in your chosen profession through both your actions and your attitude. This includes being on time for class, be respectful during the class and coming to class prepared. **Attendance is expected. Contact the instructor if you are going to miss a class.**

**NOTE:** The Kinesiology Program seeks to provide reasonable accommodations for all qualified individuals with disabilities with respect to equal educational opportunities. It is the student's responsibility to present proper documentation to the faculty member in a timely manner in order to arrange for appropriate accommodations.

**ADDITIONAL COURSE INFORMATION**

This course focuses on advanced concepts of exercise physiology. The level of presentation of this course necessitates a current understanding of the physiological concepts presented in other courses. You are **expected** to have a basic understanding of exercise physiology and to have reviewed outside material **before** lecture to enhance your comprehension of these concepts. For each hour spent in class, expect to spend **a minimum of three hours** reading and reviewing your course materials.

**HOW TO REFERENCE**

**Endnote/Reference manager - Contact library in advance if you need help.**

**KIN 5372 - TENTATIVE SCHEDULE** (Subject to change)

<b>Week</b>	<b>Topic</b>	<b>Research Presentation</b>
<b>Week 1</b> <b>08/27</b>	Introduction, goals, and objectives; course requirements. Discussion on scientific literature search; Discussion on research topic selection	
<b>09/03</b>	<i>Labor Day – No Class</i>	
<b>09/04</b>	Submit research topic and upload key research papers	
<b>Week 2</b> <b>09/10</b>	Energy Metabolism – Bioenergetics I <b>Research topic Due</b>	
<b>Week 3</b> <b>09/17</b>	Energy Metabolism – Bioenergetics II	
<b>Week 4</b> <b>09/24</b>	Skeletal Muscle Discussion on Research Topic	
<b>09/30</b>	<i>Miner Dash – Have fun</i>	
<b>Week 5</b> <b>10/01</b>	<b>Exam #1 – Metabolism</b> Lipid Metabolism, exercise prescription	
<b>10/05</b>	Writing sample due – Submit on blackboard. This will be distributed with your peers for critique	
<b>Week 6</b> <b>10/08</b>	Exercise Prescription, Cardiovascular Physiology Peer Critique – Bring your laptop/notebook.	
<b>Week 7</b> <b>10/15</b>	Intramyocellular Lipid, Oxidative Capacity and Insulin Sensitivity	
<b>Week 8</b> <b>10/22</b>	<b>Exam #2 - Respiratory &amp; Cardiovascular Physiology</b> Advanced Topics in Exercise Physiology	
<b>Week 9</b> <b>10/29</b>	Advanced Topics in Exercise Physiology	Student #1 Student #2
<b>11/02</b>	<i>Course Drop Deadline</i>	
<b>11/05</b>	<i>Near Final Draft of Research Paper Due (optional) – Submit via blackboard</i>	
<b>Week 10</b> <b>11/05</b>	Advanced topic in Exercise Physiology	Student #3 Student #4
<b>Week 11</b> <b>11/05</b>	Advanced topic in Exercise Physiology	Student #5 Student #6
<b>11/12</b>	<i>Peer feedback on the near final research paper draft due (if a near final draft was submitted) – Submit via email.</i>	
<b>Week 12</b> <b>11/19</b>	Advanced topic in Exercise Physiology	Student #7 Student #8
<b>11/19</b>	<i>Research Paper Due</i>	
<b>Week 13</b> <b>11/26</b>	Advanced topic in Exercise Physiology	Student #9 Student #10
<b>11/29</b>	<i>Peer Critique Due – Submit via email.</i>	
<b>Week 14</b> <b>12/03</b>	<b>Exam #3</b>	