

## Course Syllabus

### KINS 2010: Introduction to Exercise Science

**Instructor:** Dr. Michael O'Connor, Ramsey Center, Room 373, 542-4456, [mjo@uga.edu](mailto:mjo@uga.edu). Office hours: 8:00-9:00 AM, M-F or by appointment.

**Course Description:** This course introduces students to the field of exercise science and the Department of Kinesiology at the University of Georgia. This is done primarily by having departmental faculty and invited speakers make presentations about their area of expertise.

#### Course Objectives:

1. To provide students an understanding of the breadth of the field of exercise science.
2. To gain an appreciation for some of the major questions being addressed and approaches being used by exercise and sport scientists.
3. To expose students to vocational opportunities within the field of exercise science.

#### Course Policies and Procedures:

1. This syllabus is a general plan for the course and deviations announced to the class by the instructor may be necessary.
2. Daily attendance is not required. Failure to attend, however, will directly influence your grade since class quizzes will be given randomly.
3. Students desiring to withdraw from this class must do so by midterm.
4. I encourage you to read the policy on academic honesty in the College Catalog. All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work.
5. Make up exams are possible with a valid (medical or family emergency) excuse.

**Text:** Housh, T.J., Housh, D.J. & Johnson, G.O. (Ed.) (2<sup>nd</sup> E, 2003). Introduction to Exercise Science, San Francisco, CA: Benjamin Cummings.

#### Course Evaluation:

Electronic Database Research Project – 25 points

Exam # 1 – 30 points

Exam # 2 – 20 points

Exam # 3 – 20 points

Quizzes – 5 points

Extra Credit – Up to 5 points

#### Grading:

A = > 93%

B+ = 87-89.9%

B- = 80-82.9%

A- = 90-92.9%

B = 83-86.9%

C+ = 77-79.9%

C = 70-76.9  
D = 60-64.9%

C- = 65-69.9%  
F = less than 60%

**Electronic Database Research Project** (25% of your grade):

The main purpose of this assignment is for you to learn how to access and retrieve scholarly Exercise Science-related material using electronic databases. A second purpose is for you to learn in-depth, state-of-the-art information about an Exercise Science topic of interest to you.

**Step 1.** Identify an exercise-related question: (i) that you are interested in knowing the answer to, and (ii) about which research results have been published. If there is little or no published research on the topic that interests you then you will need to find another topic.

You will do this by searching in either Google Scholar <http://scholar.google.com/> or one of the following major medical or psychological science data bases: Medical = Medline or PubMed; Psychological = PsycInfo or PsycArticles. PubMed is found at <http://www.pubmed.org>. The other data bases are available at the University's GALILEO webpage: <http://www.galileo.usg.edu/>. PsycINFO and PsycArticles are found in Galileo under the "Social Sciences" and then choose "Psychology". These databases consist of psychology research articles. Medline is found in Galileo under "Medicine and Health" and then choose "Medicine". This database contains research articles related to medicine.

Terms to use in your database research should be either "exercise" or "physical activity" or "fitness" or inactivity" or a specific sport or activity. The other term should be a general topic of interest. General topics include the effects of exercise on muscle, bone, heart, heart disease, blood pressure, cholesterol, diabetes, mortality, metabolism, stroke, cancer, osteoarthritis, pain, obesity, chronic obstructive pulmonary disease, immunity, anxiety, depression, fatigue, eating disorders, personality, self esteem, and sleep. Other topics include perceived exertion, biomechanics, gait, footwear, hormones, aging, altitude, knee and other injuries, running, cycling or swimming performance.

You may obtain and read review articles in order to put your research topic into proper perspective; however, your focus should be on data-based articles and NOT on review articles. Data-based articles contain data and original research. Review articles synthesize information from others' research. In data-based articles, it is mentioned in the article that animals or subjects were tested, methods of testing are described, and tables or figures of the data are presented. Review articles summarize a host of data-based articles. Review articles can often be identified because they have the work "review" "summary" or "beta-analysis" in the title, and they present no data. If you do come across a review article on a topic of interest, you may benefit by reading it and finding data-based articles in the reference list that the authors of the review paper read and used to address your question. You can then obtain these data-based articles and use them for this assignment.

**Step 2.** Once you think that you have identified an appropriate topic obtain three articles that are most similar in order to address your question. Read these articles and find out the answer to your question.

**Step 3.** Submit a typed one page document that includes: (1) your exercise related question in a question format, (2) your answer to the question, and (3) a reference list of articles you used (a suggested format for references is APA). Use your own words; do not use the words of the authors of the journal articles you read (also do not summarize the journal articles you read).

**Extra Credit:**

You may earn up to five points extra credit either by (1) reading and summarizing published exercise science related research or (2) participation in a Department of Kinesiology research project and (3) participation on a team that proposes an exercise adherence proposal.

- (1) Prior to October 9th obtain the approval from your instructor for a specific exercise science topic. Read and summarize a data based journal article on that subject. Turn in a two page paper that includes the following sections: Citation; Rationale for the study; Methods employed (i.e., what was done); Results (or prediction of what the results will show); and Discussion/Evaluation (what did you think of the study). Critical to getting full credit is a meaningful discussion/evaluation section. This option will not be available after October 9<sup>th</sup> (possible 2 points)
- (2) Participate as a subject in Department of Kinesiology research study. You will be informed in class of ongoing research projects and will be able to sign up for participation at that time. Once you complete your participation in the research study you will inform the instructor by email with an overview of the study you participated in. Participation must be during the fall semester (possible 2 points).
- (3) You will have the opportunity to work with a group of other students (between 3-5 students) on a project to promote exercise (possible 3 points). The intervention will be presented to the entire class.

**Tentative Class Schedule**

| <u>Class</u>   | <u>Day</u> | <u>Date</u> | <u>Topic</u>   |
|--|------------|-------------|--|
| 1  | M          | Aug 20      | Introduction   |
| 2  | W          | Aug 22      | Electronic Data Base Research (Ms. Hartle)   |
| 3  | M          | Aug 27      | Conducting Electronic Data Base Research (lab)   |
| <b>A-G Room 368 SLC, H-M Room 370 SLC, P-Y Room 214 Ramsey</b> |            |             |  |
| 4  | W          | Aug 29      | Getting into the EXRS Science Program  |
|  | M          | Sep 3       | Holiday  |
| 5  | W          | Sep 5       | Getting into the Athletic Training Program   |
| 6  | M          | Sep 10      | EXRS & the History of EXRS – Read Ch 1 & 2   |
| 7  | W          | Sep 12      | Athletic Training – Read Ch 4 - Dr. Brown, UGA   |
| 8  | M          | Sep 17      | Biomechanics – Read Ch 5 – Dr. Simpson, UGA  |
| 9  | W          | Sep 19      | Exercise Physiology–Read Ch 6 -Dr. Cureton, UGA<br>*Electronic Data Base Research Paper Due* |
| 10   | M          | Sep24       | Exercise and Aging – Dr. Cress, UGA  |
| 11   | W          | Sep26       | Cardiac Rehab - Dr. DuVal, UGA   |

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|----|---|--------|--|
| 12 | M | Oct 1  | Cardiovascular Ex. Phy. - Dr. McCully, UGA                 |
| 13 | W | Oct 3  | Exam # 1   |
| 14 | M | Oct 8  | Occupational Therapy – Dr. Schell, Brenau U                |
| 15 | W | Oct 10 | Sport Nutrition – Read Ch 7 – Ms. Taylor, UGA              |
| 16 | M | Oct 15 | Measurement – Read Ch 9 - Dr. Baumgartner, UGA             |
| 17 | W | Oct 17 | Sport Psychology - Read Ch 8 – Dr. Dishman, UGA            |
| 18 | M | Oct 22 | Lab Walk   |
| 19 | W | Oct 24 | Motor Cont. & Learn – Read Ch 10 –<br>Dr. Tomporowski, UGA |
| 20 | M | Oct 29 | Exam # 2   |
| 21 | W | Oct 31 | Physical Therapy –Dr. Lake, Armstrong Atlantic U.          |
| 22 | M | Nov 5  | SGR Report on Physical Activity & Health                   |
| 23 | W | Nov 7  | Pre Med Advising – Dr. McCully, UGA                        |
| 24 | M | Nov 12 | Graduate School - Dr. Baumgartner, UGA                     |
| 25 | W | Nov 14 | Personal Training – Ms. Lisa Perron, Atlanta, GA           |
| 26 | M | Nov 19 | Physician Assistant – Ms. Badach, UGA                      |
|    | W | Nov 21 | Holiday  |
| 27 | M | Nov 26 | Respiratory Therapy – Ms. Hernlen, MCG                     |
| 28 | W | Nov 28 | SGR intervention Competition                               |
| 29 | M | Dec 3  | Wellness   |
| 30 | W | Dec 5  | Closure/Review/Evaluation                                  |

Final Exam December 14, 12:00 PM (material after exam #2)