

## Course Syllabus

### EXRS 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: 8:00-9:30 AM, M-TH 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. Quizzes will cover assigned readings and will be given prior to discussion.
6. 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 – 35 points

Exam # 2 – 35 points

Quiz Average – 5 points

Extra Credit – 3 points (participation in exercise science research project)

#### **Grading:**

A = 93.1% or above of total points    A- = 93-90% of total points  
B+ = 87-89.9% of total points        B = 82.5-86.9 of total points

B- = 80-82.4% of total points  
C = 72.5-76.5 of total points  
D = 60-69.9% of total points

C+ = 77-79.9% of total points  
C- = 70-72.4% of total points  
F = less than 60% of total points

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

One 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 summary that includes: (1) your question in a question format, (2) your brief answer to the question, and (3) a reference list of articles you used (the references can be listed in any format). Use your own words; do not use the words of the authors whose work you are summarizing. The summary should be short, one page only.

**Extra Credit:**

You may earn up to three points extra credit either by reading and summarizing published scientific research or for participation in an exercise science research project. To earn credit you must get prior approval from the instructor prior to October 25<sup>th</sup>. You will also be informed in class on ongoing research projects and will be able to sign up for participation at that time. Extra credit requires the completion of a one page summary that includes the following sections: (1) Rationale for the study, (2) Methods employed (i.e., what was done), (3) Results (or prediction of what the results will show), and (4) Discussion/Evaluation (what did you think of the study). Critical to getting full credit is including a meaningful discussion/evaluation section.

**Tentative Class Schedule**

<u>Class</u>	<u>Day</u>	<u>Date</u>	<u>Topic</u>
1	W	Aug 16	Introduction
2	M	Aug 21	Conducting Electronic Data Base Research
3	W	Aug 23	Conducting Electronic Data Base Research (lab)
4	M	Aug 28	Getting into the EXRS Science Program
5	W	Aug 30	Getting into the Athletic Training Program
6	M	Sep 4	Holiday
7	W	Sep 6	EXRS & the History of EXRS – Read Ch 1 & 2
8	M	Sep 11	Athletic Training – Read Ch 4 - Dr. Ferrara, UGA
9	W	Sep 13	Biomechanics – Read Ch 5 – Dr. Simpson, UGA
10	M	Sep 18	Exercise Physiology–Read Ch 6 -Dr. Cureton, UGA *Electronic Data Base Research Paper Due*
11	W	Sep 20	Exercise and Aging – Dr. Cress, UGA
12	M	Sep 25	Cardiac Rehab - Dr. DuVal, UGA
13	W	Sep 27	Cardiovascular Ex. Phy. - Dr. McCully, UGA
14	M	Oct 2	Exam # 1
15	W	Oct 4	Occupational Therapy – Dr. Schell, Brenau U
16	M	Oct 9	EX & Sport Nutrition – Read Ch 7
17	W	Oct 11	Sport Psyc. & Mental Health - Read Ch 8 Dr. Pat O'Connor, UGA
18	M	Oct 16	Lab Walk
19	W	Oct 18	Measurement – Read Ch 9 - Dr. Baumgartner, UGA
20	M	Oct 23	Motor Cont. & Learn – Read Ch 10 – Dr. Tomporowski, UGA
21	W	Oct 25	Physical Therapy –Dr. Lake, Armstrong Atlantic U.
22	M	Oct 30	SGR Report on Physical Activity & Health
23	W	Nov 1	Muscle Biology
24	M	Nov 6	Graduate School - Dr. Baumgartner, UGA

25	W	Nov 8	Physical Function of Ind. w Disabilities (Horvat)
26	M	Nov 13	Personal Training – Ms. Lisa Perron, Atlanta, GA
27	W	Nov 15	Physician Assistant – Ms. Badach, UGA
28	M	Nov 20	Respiratory Therapy – Ms. Hernlen, MCG
29	W	Nov 22	Holiday
30	M	Nov 27	Pre Med Advising – Dr. McCully, UGA
31	W	Nov 29	Surgeon Generals Report
32	M	Dec 4	Closure
33	F	Dec 8	Final Exam (material after exam #1) 12-3 PM