Instructor:       Dr. Tim Scheett
Office:          Silcox Rm 214
Office hours:    M 3:00–4:30 PM; T & TH 10:50–12:00 PM
                OR email to schedule an individual appointment
Phone:           (843) 953-6538 (office)
Email:           ScheettT@cofc.edu

Course meeting:  T & TH 9:25 – 10:40
                 Room 206 Johnson Center

Prerequisite courses:  BIOL 201 Human Physiology,
                         or permission of instructor

Course Description:
This course addresses the main aspects of nutrition as related to exercise and physical
performance. Emphasis will be placed on the energy systems in exercise, components
of nutrients, assessment of nutritional needs, and diet modification for physically active
individuals.

Course Text and Materials:

2004. (Required)
or

Nutrition/Dietary Analysis Software (Access to one of the following is Required)
   Nutrition Calc Plus +, McGraw Hill
   Diet Analysis+, Thompson-Wadsworth
   Nutritionist Pro, Axxya Systems
   Nutritionist IV, The Hearst Corporation
   Food Works, Xyris

Antonio, J. & Stout, J. Sports Supplements. Lippincott Williams & Wilkins: Philadelphia,
2001. (Optional)
Student Learning Outcomes:
Upon successful completion of the course, the student will be able to:
1. Apply the principles of nutrition including the roles of fluids and electrolytes, vitamins, minerals, ergogenic aids, carbohydrates, proteins, fats, and dietary supplements, as they relate to the dietary and nutritional needs of athletes and others involved in physical activity.
2. Describe the relationship between dietary practices and the development of nutrition related diseases and conditions (ie: anemia, heart disease, cancer, diabetes, bone health, and gastrointestinal conditions).
3. Explain the importance of good nutrition in enhancing performance and preventing injury and illness.
4. Describe the principles of effective body heat loss and heat illness prevention as it related to the role of proper fluid intake before, during, and after physical activity.
5. Evaluate the energy and nutritional demands of specific activities and the nutritional demands placed on athletes and others involved in physical activity.
6. Explain the physiological processes and time factors involved in the digestion, absorption, and assimilation of food, fluids, and nutritional supplements as they relate to the design and planning of pre- and post-activity meals, considering menu contents, time scheduling, and the effect of tension and anxiety before activity.
7. Discuss common nutritional fads and fallacies, popular weight loss diets, and strength and weight-gain programs.
8. Describe the signs, symptoms, and physical consequences of disordered eating as compared to those of eating disorders.
9. Describe the principles, advantages, disadvantages and signs and symptoms of overuse and abuse of the nutritional ergogenic aids and dietary supplements used by athletes and others involved in physical activity.
10. Utilize the principles of weight control, including body fat percentage, caloric requirements, effects of exercise, and fluid loss to provide athletes and others involved in physical activity safe and effective recommendations for weight control, weight loss, and weight gain.

Grade Distribution: 600 points total - There will be three exams during the semester worth 300 total points. Format of these exams will be T/F, matching, and/or multiple choice. Exam dates will be discussed in class at least 1 week prior to the exam.

Assignments
All due dates will be announced and assignments are due at the beginning of class. Late assignments will be docked 10% per day they are late.

Information Exploration (50 points) – students will be assigned to identify and evaluate different sources of information for nutrition and nutritional supplements related to exercise and sport and report their findings to the class. Specific details will be discussed in class and an assignment will be posted on WebCT including which sources each student will evaluate.

Nutrition recipe (100 points) – students will create and type up one recipe for a meal or 2 snacks that will contribute to the macro and micronutrient needs of a physically active individual. These recipes will be distributed to people that attend the Student Health Fair (March 24th). Recipes should fit on one single page, include ingredients and amounts, step by step directions and a nutrient breakdown. Students will also make their recipe and bring it to class on March 18th to share with the class (1 serving per person).
Nutrition Video Series Project (150 points) – students may choose to work in groups of no more than 4 students to write, direct, and edit a video series of 3-5 videos lasting 3-5 minutes each. The video series will focus on how College of Charleston students can eat healthy meals and snacks as well as exercise in a variety of ways throughout their 4 years at the College of Charleston. Video series topics could include such areas as healthy eating on campus, healthy eating on a budget, healthy snacks and lunches on the go for busy college students or college student-athletes, etc. The recommendations must be geared to ultimately meet the respective goals of College of Charleston students (e.g. increase individual fitness, lose weight, add muscle mass, increase performance in intramurals, or other competitions such as a road race, triathlon, tennis, racquetball, rugby, soccer, golf, or volleyball tournament, etc.). Students will present their video series to the class and will have 15 minutes to answer questions from the class and instructor to defend the claims and statements made in the video series. All information provided must not be opinion based but rather founded in science with appropriate references provided during the video credits. A DVD of the video must be submitted to the instructor for grading. Guidelines for the nutrition video series project will be discussed in class and posted on WebCT. Due April 1st.

Or

Diet and Exercise Analysis Project Assignment (150 points) – a student will work alone and choose two different diets to follow for seven days each as well as an exercise bout to perform on the seventh day of each diet (the exercise bout MUST be the SAME on each diet). To complete this project, you will record a 3-day dietary intake for your typical diet as well as for each of the diets you choose to follow (you will follow each diet for 7 days and will record the food you eat during the last 3 days of the diet). You will perform nutritional analyses on the 3 food records. You will also perform an exercise bout of your own choosing consisting of moderate intensity exercise prior to the first diet and then perform the same exercise session on the last day of each subsequent diet to determine if the diet had any perceived or measurable (HR and RPE) affect on the exercise bout. The assessment portion of the nutrition/exercise project will be geared towards allowing you to experience first hand and subsequently understand how variations in nutrient intake effects exercise performance. Guidelines for the nutrition/exercise project will be discussed in class and posted on WebCT. Due April 1st.

Optional Opportunities to Earn Bonus Points

Errors and Myth Busting Assignment (25 points each) – each student has the ability to bust 4 errors or myths in advertising, marketing, or anecdotal comments that state or perpetuate incorrect information. Each error, myth or anecdotal comment must be submitted along with the written investigative document outlining what the error, myth or anecdotal comment was, where it was used, who made it, what context it was made in, why you believe it was made and what the truth actually is, with accompanying references to support the truth. If the error or myth was aired on TV then a video (preferred) or audio clip of the segment must be submitted. All anecdotal comments must be cleared with the instructor prior to submission to verify the comment is acceptable for the assignment.

Food (5 points each for a maximum of 25 points) – each student has the ability to bring 1 serving size of a food or beverage item for each student in the entire class to sample. The student will be required to explain what the food or beverage item is as well as how it meets the nutritional needs of a specific individual as well as a discussion of the nutrient breakdown.
All assignments will be typed and follow NLM (United States National Library of Medicine) format. All assignments require a reference section. All information must be from peer-reviewed professional journals. Examples of journals available in our library are *Physician and Sports Medicine*, *Journal of Sports Medicine*, *Research Quarterly*, *Athletic Training*, *Journal of Nutrition Education*, and *Nutrition Reviews*. Additional journals are available at the MUSC library and my office. (Other journals that are appropriate: *Journal of Strength and Conditioning Research*, *Medicine and Science in Sports and Exercise*, *Journal of Applied Physiology*, *European Journal of Applied Physiology*, *International Journal of Sport Nutrition and Exercise Metabolism*, etc.)

No websites will be allowed to be used as references.

No student will be allowed to use information gathered by another student for their own presentation (current or previous semester). Doing so will be deemed as a violation of the College of Charleston Honor Code.

Grade Scale:

Course letter grades will be determined on the basis of overall performance. Earned points will be divided by 600 total points and the following will be used to determine final grades:

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<th>Grade</th>
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<tr>
<td>A</td>
<td>90 – 100</td>
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<td>A-</td>
<td>88 – 89</td>
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Attendance:

While it is recognized that certain unforeseen events may prevent you from attending a certain class, due to the lecture and discussion nature of this class it is vital that you attend and participate. If you miss more than 25% of the class, you will be assigned a grade of WA. If extreme circumstances necessitate an absence, you will be held responsible for the class material covered during your absence. Excused absences will be considered for the following: serious illness, hospitalization, death of a family member or close friend, attendance at an event representing the College of Charleston. Appropriate documentation must be provided from the Undergraduate Dean’s Office for an absence to be considered excused. If a student has more than four unexcused absences that student may be removed from the class roster. In addition, promptness is required as being tardy will count as an unexcused absence.

I do understand that unforeseen circumstances may prevent you from attending a class during which a quiz or exam is given. If you arrange ahead of time, I will make other arrangements (this may include an essay exam). Also, be warned that I may ask for verifiable proof of your stated reason for your absence. There are NO make-up quizzes given!! Remember – I was a student not that long ago. If a student has 100% attendance for all quizzes they will be allowed to drop their lowest quiz score.

Multi-media:

The use of any multi-media device during class is strictly prohibited!! It is recommended that you bring a stand alone calculator to regular class meetings as well as exams. If your cell phone rings you will be asked to leave class. If you have a dire family emergency where you are
expecting a call during class – you will be expected to take the seat next to the door and quietly exit the class if your phone vibrates. No electronic devices will be allowed to be used, other than a calculator, for any exam. The possession of any multi-media device during an examination will automatically result in a zero on that exam.

Final grades will not be given out or posted at the end of the semester. You will have to wait until you can access your grades via Cougar Trail or when the University sends out the official grade records.

**Honor System:** Review the current Student Handbook: A Guide to Civil and Honorable Conduct, especially the section pertaining to the classroom code of conduct.

You are expected to do your own work in this course. *If you are caught cheating or plagiarizing another individual’s work you will be reported to the appropriate University office and you will receive an “F” for a grade in the course.* You need to do any and all writing on your own and in your own words. Simply re-arranging a paragraph or changing one or two words of another individual’s work is still considered plagiarism. **The 1, 2, or 10 points you cheat for are not worth risking your ENTIRE academic career. DO NOT put me in a situation where I have to act accordingly.**

**General Notes:**

- It is strongly recommended that you read “ahead” of the lectures. The pace of the lecture presentations is approximately 1 unit (1-3 chapters) every 3-4 weeks, however, some are quicker than others. On a regular basis I will try to make you aware of where we are at in the course so that you can prepare accordingly. I **strongly recommend** that you read the text **BEFORE and again after the lectures on that material.**

- The large volume of material presented in this class will necessitate frequent and consistent study. What you do the first week is as important as what you do the last week. Don’t put off studying for quizzes and exams until the last minute. Quite simply – **20 min of studying EVERYDAY** will prepare you to do well on the quizzes and thus the subsequent exams will not be as difficult to prepare for. **Exams and quizzes will be demanding and difficult; you must be thoroughly familiar with the information to the point of being able to interpret and apply it.** This is an upper level class and I fully expect each of you to think about the basic information you already know, interpret it and apply it to various situations.

- If you miss a class when handouts are provided it is your responsibility to get a copy of the handouts from another student. You are also responsible for obtaining the missed notes from another student. **DO NOT COME TO THE PROFESSOR AND ASK FOR HANDOUTS AND/OR NOTES FOR THE LECTURE(S) YOU MISSED.**

- **If there is a student in this class who has a documented disability and has been approved to receive accommodations through SNAP Services, please feel free to come and discuss this with me during my office hours.**
  - Any student eligible for and needing academic adjustments or accommodations because of a disability is requested to speak with the professor in a timely manner so that your needs can be addressed.
  - The College will make reasonable accommodations for persons with documented disabilities. Students should apply for services at the Center for Disability Services.
located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations should notify their professors as quickly as possible.

- This College abides by section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act that stipulates no student shall be denied access to an education “solely by reason of a handicap.” Disabilities covered by law include, but are not limited to, learning disabilities and hearing, sight or mobility impairments. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, please see an administrator at the Center of Disability Services, (843) 953-1431 or me so that such accommodation may be arranged.

Tentative Class Schedule:

| Week 1     | Introduction/Background & Overview of Sports Nutrition |
| Week 2     | Government Regulation (FDA, USDA, FTC) & Current Topics in Sports Nutrition |
| Week 3     | Basic Anatomy & Exercise Physiology |
| Week 4     | Basic Metabolism & Steroid and Protein Hormones |
| Week 5     | Macronutrients & Micronutrients |
| Week 6     | EXAM 1* & How to Shop for Nutrition |
| Week 7     | Dietary Assessment & Obesity and Body Image |
| Week 8     | Thermoregulation – Hydration, Hyperhydration and Rehydration |
| Week 9     | Nutrition for Aerobic Athletes |
| Week 10    | Nutrition for Strength-Power Athletes & Nutrient Timing |
| Week 11    | EXAM 2* & Nutrition and the Young Athlete |
| Week 12    | Nutrition for the Female Athlete & Nutrition for the Vegetarian Athlete |
| Week 13    | Nutritional Supplements: Mass gainers, muscle builders, cell volumizers |
| Week 14    | Nutritional Supplements: Stimulants, herbal boosters, vasodilators |
| Finals Week| Final Exam |

* Tentative Date