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: Lecture: T & TH 1:40 – 2:55
Rooms 111 & 215 (Silcox Gym)

Prerequisite courses: PEHD 340/Lab or permission of the instructor

Course Description: This course is designed to apply theoretical knowledge in the areas of exercise science toward the development of an optimal resistance training and conditioning program. Emphasis will be placed on achieving peak athletic performance through a long term manipulation of the program design.

Course Texts:


Additional Helpful Resources:

Student Learning Outcomes:
Upon successful completion of the course, the student will be able to:
1. Apply scientific knowledge to train athletes and clients for the primary goals of improving athletic performance and fitness.
2. Learn how to conduct sport-specific testing sessions.
3. Learn how to demonstrate and teach proper exercise techniques.
4. Learn how to design and implement safe and effective strength training and conditioning and personal training programs.
5. Learn how to provide guidance regarding nutrition and performance-enhancing substances.
6. Apply exercise prescription principles for training variation, injury prevention, and reconditioning.

Grade Distribution: 700 points total - There will be multiple assignments with various deadlines throughout the semester. See below for a description of the assignments. Due dates will be determined during the second class meeting of the semester.

Exams – Students will take two written exams and a final comprehensive exam each worth 100 points. Students will be exempt from the final exam if they schedule and TAKE the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) certification exam PRIOR TO May 4, 2010. Refer to the NSCA Certification Commission website for paper and pencil exam locations. Computer exam testing is available in Columbia, SC, Georgetown, SC, Spartanburg, SC, Savannah, GA, and Charlotte, NC as well as in numerous other cities in other states. Consult the NSCA Certification Commission website for specific days and times as well as to register for the certification exam: nsca-cc.org/

Sport Analysis, Assessment and Training Methods Assignment (200 points)
Part 1: Students will be required to attend a high school, collegiate or professional sport competition of their choice to analyze the specific strength and conditioning components of the sport. Students will breakdown the sport based on the specific metabolic energy systems utilized (i.e. based on work:rest ratios) as well as the muscular and cardiorespiratory physiological aspects required by the sport of their choice. Students will provide a written analysis highlighting these physiological and metabolic aspects. In addition, the student should, if necessary, break the sport down by sub-areas (e.g. basketball: post players and guards; football: linemen and skill positions). Students will present their analysis to the class as well as provide a handout for each class member. Specific details will be discussed in class and a grading rubric will be posted on WebCT.

Part 2: Students will make edits to the Sports Analysis assignment based on feedback and the grading rubric. Students will then complete the Assessment and Training Methods portion of the assignment using an outline format to list as many appropriate assessment tests, resistance training and conditioning training methods that can be used to train and develop the sport-specific metabolic and physiological aspects identified in the part 1 Sport Analysis. The assessment tests and training methods must be broken down into appropriate training seasons (preseason, in-season, and off-season). These sections will then be further subdivided into the following areas (a) selection of appropriate performance tests, (b) selection of appropriate strength and conditioning training methods that could be used to train and develop the various sport-specific metabolic and physiological aspects identified in the part 1 Sport Analysis. This project will aid the student in developing a resource portfolio of training methods and assessment tests that they can refer to in the future if they enter the strength and conditioning profession. Specific details will be discussed in class and a grading rubric will be posted on WebCT.

PEHD 438 – Spring 2010 – Dr. Scheett
Practicum experience (200 points) – each student will be required to complete 50 practicum hours working with individual or team athletes under the direct supervision of a certified strength and conditioning professional. Students may complete these hours with Velocity Sport Performance in Mt. Pleasant or the College of Charleston’s Department of Athletics’ Sport Performance staff, or with another organization following prior approval from course instructor. Each student will be required to contact and schedule their practicum hours on their own. Practicum hours MUST NOT conflict with other courses. You must show up at least 10 minutes PRIOR to your scheduled practicum experience while wearing appropriate clothing (i.e. exercise clothing with athletic shoes) as you will be expected to demonstrate and actively participate in the training sessions as directed by your supervisor. At the end of the practicum students must submit a log of completed hours and experiences signed by their direct supervisor. Students will also submit a completed evaluation form at the end of the practicum experience. Students may earn 1 additional point for each 1 hour of additional practicum experience over the required 50 hours. Details of the practicum including approved sites along with student experience log and final evaluation form will be posted on WebCT.

Strength and Conditioning Scholarship – students will have the opportunity to volunteer to help design, advertise, garner sponsorship and run a strength and conditioning competition to raise funds to create and support a scholarship for a College of Charleston student that seeks to study strength and conditioning at the graduate level.

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. You must receive my approval for each of your articles.

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 700 total points and the following will be used to determine final grades:

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<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
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<td>A-</td>
<td>88 – 89</td>
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<tr>
<td>B</td>
<td>80 – 84</td>
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<td>B-</td>
<td>78 – 79</td>
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<td>C</td>
<td>70 – 74</td>
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<td>C-</td>
<td>68 – 69</td>
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<td>D</td>
<td>64 – 65</td>
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<td>B+</td>
<td>85 – 87</td>
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<td>C+</td>
<td>75 – 77</td>
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<td>D+</td>
<td>66 – 67</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.

Class Participation: This class was specifically designed to provide you as many applied hands-on experiences as possible. Therefore, you are required to attend each application class (typically on Thursdays) while wearing appropriate clothing (i.e. exercise clothing with athletic shoes). Showing up for an application class without appropriate clothing will count the same as if you did not attend at all. See your instructor prior to the start of this course if you participate in an activity that may cause a problem with attendance (e.g. varsity sports) so proper arrangements can be made. If for personal or medical reasons several classes are missed, the instructor should be informed of the reason. Your full participation is expected and required (medical conditions will be accepted with proper notification).

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. The possession of any multi-media device during examination will automatically result in a zero for 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 presentations in order to allow for a group discussion following the presentations. The pace of the lecture presentations is approximately 1 topic every week, however, some are quicker or longer 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.
PEHD 438: Advanced Topics in Resistance Training and Conditioning

TENTATIVE Course Schedule

**Topic (Source; Textbook chapter)**

Course Introduction

Responses and Adaptations to Training (Multimedia with Handout)
- Adaptations to Anaerobic Training Programs (Chapter 5)

Responses and Adaptations to Training (Multimedia with Handout)
- Adaptations to Aerobic Endurance Training Programs (Chapter 6)

Measurement and Evaluation (Multimedia with Handout)
- Principles of Test Selection and Administration (Chapter 11)
- Administration, Scoring, and Interpretation of Selected Tests (Chapter 12)

Speed Development & Plyometric Training (Multimedia with Handout)
- Plyometric Training (Chapter 16 & Supplement)
- Speed, Agility, and Speed-Endurance Development (Chapter 17)

**Exam 1** (Computer-based timed test)

Free Weight and Machine Exercise Techniques (Multimedia with Handout)
- Resistance Training and Spotting Techniques (Chapter 14 & Supplement)
- Resistance Training (Chapter 15)

Aerobic Exercise and Interval Training Prescription (Multimedia with Handout)
- Aerobic Endurance Exercise Training (Chapter 18)

Resistance Training Exercise Prescription (Multimedia with Handout)
- Periodization (Chapter 19)
- Resistance Training (Chapter 15)

**Facilities**
- Facility Organization and Risk Management (Chapter 21)
- Developing a Policies and Procedures Manual (Chapter 22)

**Exam 2** (Computer-based timed test)