COLLEGE OF CHARLESTON
PEHD 498 (2 hours)-Spring 2010
CAPSTONE EXPERIENCE IN EXERCISE SCIENCE

Time: M-W-F 8:00-8:50
Place: Silcox Physical Education & Health Center, Room 409
Instructor: William R. Barfield, Ph.D., FACSM
Office Located: Silcox Physical Education & Health Center #213
Phone 953-6746, barfieldw@cofc.edu
Office Hours: M-W-F 10:00-11:00 AM, Tu-Th 9:00-10:00 AM
Contact Information: Phone 953-6746, barfieldw@cofc.edu

Prerequisites: PEHD 433 and permission of the instructor

Course Description: The capstone experience is a culmination of course work in exercise science. It provides the opportunity to critically analyze and conduct contemporary research, practice in a clinical setting, evaluate the current and future trends in the discipline, and discuss personal and professional challenges that will exist following commencement.

Required Text: None

Class Readings: As assigned by instructor

Course Objectives: Upon successful completion of this course, the student should be able to:

1. Complete research in the area that was initiated in PEHD 433 including, but not limited to recruitment of subjects, data capture, appropriate statistical analysis and preparation of work for presentation/publication.

2. Critically analyze research in the field of exercise science, including, but not limited to, 1) reading and dissecting a research article, 2) assessing the methods and materials of a research manuscript, and 3) determining if the discussion section is supported by the research findings.

3. Describe some of the primary professional issues and concerns that are currently affecting exercise scientists.

4. Explain the important contributions the exercise sciences make to preventative healthcare.

5. Select, administer, and analyze the results of fitness assessments of diverse groups of people.

Course Requirements:

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<tr>
<th>Requirement</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Research Project</td>
<td>100% (for those in a research project)</td>
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<tr>
<td>Those Not in a Research Project</td>
<td>4 x Research Papers-15-17 pages in length with a minimum of 20 refereed sources. Each paper will count 15% of your grade 10% will be for attendance</td>
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Graded Items:

- Research Project
- Those Not in a Research Project

Research Project - Students will work in their PEHD 433 assigned research project to complete the following three assignments:

I. Project: - Groups will complete the research project they began in PEHD 433 Research Methods
   - Your individual grade will be determined on the basis of participation in meetings with your faculty advisor.

II. Presentation: - Each group will make a 20 min PowerPoint presentation that describes the following:
   a) your motivation for choosing your research topic
   b) your experience with the IRB process
   c) detailed synopses of each section of your project
   d) your thoughts as to how the completion of your project has enhanced your understanding of the exercise sciences

III. Poster: - Each student will present their research study in the form of a professional poster (examples of posters will be provided by the instructor) at the Math & Science Poster Session in April 2009.
   - Your poster should summarize the intro, methods, results (including figures and/or graphs), discussion, and reference sections of your project, in a typed and well-organized manner

Evaluation Scale:

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<tr>
<th>Score</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
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<tr>
<td>88-89</td>
<td>A-</td>
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<td>85-87</td>
<td>B+</td>
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<td>80-84</td>
<td>B</td>
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<td>78-79</td>
<td>B-</td>
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<td>75-77</td>
<td>C+</td>
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<td>70-74</td>
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<td>68-69</td>
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<td>62-63</td>
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<td>F</td>
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Class Policies:

Attendance: Class attendance is required. If extreme circumstances necessitate an absence, you will be held responsible for the class material covered during your absence. Any assignment missed due to absence must be made up within one week to receive full credit. 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. Finally, class will begin in a timely manner; persistent tardiness will not be tolerated and will result in a loss of points.
Academic Honesty: Please refer to the student handbook for the definition of academic dishonesty and the subsequent penalties. Any student found in violation of the code of academic honesty by the Honor Board will be penalized as deemed appropriate by the professor.

Electronic Devices: Please turn off your cellular phones and PDAs before class begins.

Tentative Course Outline: TBA

GROUP 1
10 Year Follow-Up of PPEs (1)
Rachel Aragone
Savannah Bailey
Alex Breitenwischer
Rachel Priester
Alissa Shulby
Melissa Thuma

Anaerobic and Aerobic Fitness of Rickshaw Drivers
Gia D’Agostino
Heather Driggers
Lauren McAlhaney
Megan Oliver
Anne Redding
Katie Speir

The Effects of Static Stretching on the High Jump of Collegiate Volleyball Players
Whitney Frail
Adrienne Gant
Kelly Gayman
Rebecca Golding
Emily Jackson
Tyler Logothetis
Erin Lovelace
Whitney Frail
Kelly Gayman

Effectiveness of TRX Suspension Training vs Traditional Resistance Training
Johannes Aartun
Matt Ervin
Zack Halewood
Robert Hensley
Bailey Morris
Andrew Snipe

Eliminating Fears in the Gym-A Study of Female Resistance Training
Shannon Gaethe

GROUP 2

The Effects of Jump Training in Different Water Depths on the Stretch Shortening Cycle
Ben Hepner
Matt Morris
Kali Oberholtzer
Maegan Rogers
Andrew Soesbee

Comparison of Wii Fit to Traditional Aerobic Training Using Body Composition and Muscular Strength
Kelvin Bailey
Lasasha Garrett
Kara Hudacko
Beatina Keel
Allison Lester
Maurice Miller
Sarah Moye
Meryl Stone

Comparison of the Ten Minute Modified Hoff and One Lap Modified Hoff for Assessment of Soccer Fitness
Colleen Boehm
Danielle Duncan
Toral Patel
Megan Scott
Julie Slater
Kristen Zioncheck

Comparison of Wii Fit to Traditional Aerobic on Heart Rate, 1-mile Run-Walk and Sit and Reach
Chelsea Cooke
Danielle Jordan
Mindy Marchlewski
Shaqenta McKellar
Dan Mogensen

The Effects of Plyometric Push-Ups on Muscular Strength, Power and Endurance
Julie Brier
Clay Caufield
TJ Hamon
Quinn Hayden
Stephen King