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**Graduate Programs—NEW COURSE PROPOSAL**

DEPARTMENT NAME:  
**EXERCISE SCIENCE AND HEALTH PROMOTION**

COLLEGE OF:  
**Education**

RECOMMENDED COURSE IDENTIFICATION:  
 PREFIX **PET** COURSE NUMBER **5392** LAB CODE (L or C) **C**  
 (TO OBTAIN A COURSE NUMBER, GO TO [www.fau.edu/academic/registrar/UUPCinfo/](http://www.fau.edu/academic/registrar/UUPCinfo/))

**EFFECTIVE DATE**  
 (first term course will be offered):

COMPLETE COURSE TITLE  
**Comprehensive Concepts of Strength and Conditioning**

**FALL 2008**

CREDITS:  
**3**

TEXTBOOK INFORMATION:  
**Required Text: Essentials of Strength and Conditioning; 2nd Edition**  
 Baechle, T.R. & Earle, R.W. (eds.); Human Kinetics, 2002

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR  PASS/FAIL \_\_\_\_\_ SATISFACTORY/UNSATISFACTORY \_\_\_\_\_

COURSE DESCRIPTION, NO MORE THAN 3 LINES:

**Advanced methods and techniques associated with conditioning of athletes and specific populations. Sport specific conditioning of both aerobic and anaerobic systems and practice of methods to specifically assess performance parameters is included.**

PREREQUISITES:  
 PET 4351 Exercise Physiology  
 and PET 4351L (lab)

COREQUISITES:

OTHER REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL):  
**GRADUATE LEVEL**

PREREQUISITES, COREQUISITES & REGISTRATION CONTROLS SHOWN ABOVE WILL BE ENFORCED FOR ALL COURSE SECTIONS

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:  
**TERMINAL DEGREE IN THE AREA (PHD OR EDD) OR**  
**MASTER'S DEGREE IN RELATED FIELD AND A CERTIFIED STRENGTH AND CONDITIONING SPECIALIST**

Other departments, colleges that might be affected by the new course must be consulted. List entities that have been consulted and attach written comments from each.

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 Office Telephone Number

**SIGNATURES**

**SUPPORTING MATERIALS**

<p><b>Approved by:</b></p> <p>Department Chair: _____</p> <p>College Curriculum Chair: _____</p> <p>College Dean: _____</p> <p>UGPC Chair: _____</p> <p>Dean, Graduate Studies: _____</p>	<p><b>Date:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Syllabus</b>—must include all details as shown in the UGPC Guidelines.</p> <p><b>Written Consent</b>—required from all departments affected.</p> <p>Go to:  <a href="http://www.fau.edu/graduate/gpc/index.php">www.fau.edu/graduate/gpc/index.php</a>        to download this form and guidelines to fill out the form.</p>
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Email this form and syllabus to [sfulks@fau.edu](mailto:sfulks@fau.edu) and [egirjo@fau.edu](mailto:egirjo@fau.edu) one week **before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website by committee members prior to the meeting.

**Florida Atlantic University**  
**Department of Exercise Science and Health Promotion**  
**PEP 5930: Comprehensive Concepts of Strength and Conditioning**

Class: Thursday 4:00 – 6:50 pm Boca Campus, Room ~~TBA~~

Instructor:

Office: TBA

Office hours: TBA

Contact: Office:

Email:

**Prerequisite:** PEP 3136 Leadership II; PET 4351 Exercise Physiology

**Required Text:** **Essentials of Strength Training and Conditioning, 3<sup>rd</sup> Edition**  
Baechle and Earle, (Eds.); Human Kinetics (2008)  
ISBN: 0736058036

Optional Texts: Designing Resistance Training Programs  
Fleck, S. & Kraemer, W. 4th Ed. Human Kinetics, Champaign, IL.  
2004

Serious Strength Training

Bompa, T.; 2nd Ed. Human Kinetics, Champaign, IL. 2004

**Course Description:** This course covers advanced methods and techniques associated with conditioning of athletes and high-performance populations. Sport specific conditioning of both aerobic and anaerobic systems and practice of methods to specifically assess performance parameters in athletes is included.

This class is web-assisted. The syllabus, handouts, assignments, and class lectures will appear on Blackboard. To access these materials, sign on to <http://blackboard.fau.edu>. Using Blackboard in this course does not rule out your requirement to attend all lectures and class meetings.

**List of course and instructional objectives.**

1. Demonstrate an in-depth knowledge of exercise physiology as it relates to training athletes as well as the general population, with emphasis on the neuromuscular and bioenergetic adaptations which take place with intense training.
2. Demonstrate knowledge of exercise specificity and apply this knowledge in planning training regimens that are specific for the development of both aerobic and anaerobic capacity, as well as muscular strength, endurance and power for specific athletic populations as well as the general population.
3. Students will also be able to display knowledge in special considerations associated with the training including proper nutrition, weight management, effects of heat and cold, acclimatization, altitude, ergogenic aids and special performance enhancers.

**Course Requirements:**

Exam, Mid-Term Exam and Comprehensive Final, 50 points each; (150 points total)  
Exams will include multiple choice, true/false, written definitions, and short essay questions. If a test is missed, it will be assigned a grade of 0% (unless there are unusual circumstances). Rescheduling of an exam (early or later, regardless of circumstance) will incur a 5-point penalty.

**Course Requirements (continued):**

Applied Examination, 50 points;

Written examination covering the material of advanced exercise techniques and testing methods discussed in class. Testing may be in conjunction with images or video (similar to the CSCS exam), which mainly assesses competencies in exercise techniques, functional anatomy, and testing procedures. Exam will include multiple choice or short answer questions.

Program and Presentation, 50 points;

Students are expected to compose a 15-20 lecture on a topic related to Strength and Conditioning. Topics may include special considerations in the training of athletes including proper nutrition, weight management, effects of heat and cold, acclimatization, altitude, ergogenic aids and special performance enhancers. Detailed information will be provided at a later date.

Training Program and Presentation, 50 points

Students will be responsible for the design of a resistance training program for a specific population and performance level. The program will be based on the training principles discussed in class. Students will work individually to present this information using a PowerPoint presentation not to exceed 20 minutes. A detailed paper will also be required outlining the rationale of the program. Detailed information will be provided at a later date.

Research Review. 50 points.

Student will present a minimum (25) of current research articles published within the past five years pertaining to strength and conditioning methods. Student will produce a bibliography list.

**Assessment procedures including tests, quizzes, and projects.**

Two Examinations	100 points
Final Examination	50 points
Applied Examination	50 points
Research Review	50 points
Program and Presentation	50 points
<b>Total</b>	<b>300 points</b>

**Grading criteria.**

Scale:

93.0 -100% = A	73.0 -76.99% = C
90.0 -92.99% = A-	70.0 -72.99% = C-
87.0 -89.99% = B+	67.0 -69.99% = D+
83.0 -86.99% = B	63.0 -66.99% = D
80.0 -82.99% = B-	60.0 -62.99% = D-
77.0 -79.99% = C+	<60.0% = F

#### ATTENDANCE:

According to University policy, "Students are expected to attend all of their scheduled University Classes and to satisfy all academic objectives as outlined by the instructor." Attendance includes meaningful, active involvement in all class sessions, class discussions, and class activities as well as professional, ethical, conduct in class. Reasonable accommodations are made for religious observances.

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Davie - MOD I (954-236-1222, and follow all OSD procedures.

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information:

[http://www.fau.edu/regulations/chapter4/4.001\\_Honor\\_Code.pdf](http://www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf).

#### **Schedule including topics covered**

<b>Week</b>	<b>Topic</b>
1	PHILOSOPHY, GOALS AND OBJECTIVES
2	TESTING AND EVALUATION
3	WARM-UP, COOL-DOWN, AND FLEXIBILITY
4	PLYOMETRIC TECHNIQUES/PROGRAM : SPEED, AGILITY, AND QUICKNESS TECHNIQUES/PROGRAM
5	METABOLIC TECHNIQUES/PROGRAM
6	PERIODIZATION OF STRENGTH

- 7 STRENGTH TRAINING EXERCISE SELECTION
- 8 MID TERM EXAMINATION
- 9 ADAPTATION/HYPERTROPHY PHASE
- 10 STRENGTH/POWER PHASE
- 11 STRENGTH PROGRAMS – Football, Volleyball
12. STRENGTH PROGRAMS – Soccer, Basketball
13. STRENGTH PROGRAMS - Track and Field (Throwers, Sprinters/Jumpers)
- 14 STRENGTH PROGRAMS - Wrestling, Gymnastics, Baseball, Softball  
(Projects due)
- 15 STRENGTH PROGRAMS – Special Populations
- 16 FINAL EXAMINATION

Abbreviate reference list:

Costa PB, Graves BS, Whitehurst M, Jacobs PL. (In Press) The acute effects of different durations of static stretching on dynamic balance performance. *J Strength Cond Res*.

Hartman, M.J., Clark , Bemben, Kilgore, and Bemben. Comparisons between twice-daily training and single-daily training sessions in male weightlifters. *International Journal of Sports Physiology and Performance*, 2(2):76-86, 2007.

Hartman, M.J. , Fields, Byrne, and Hunter. Resistance training improves metabolic economy during functional tasks in older adults. *Journal of Strength and Conditioning Research*, 21(1): 91-95, 2007.

Jacobs PL, Burns P. (In Press) Acute Effects of Whole-Body Vibration on Lower Extremity Muscular Strength and Flexibility. *J Str Cond Res*.

Ryan, E.D., Cramer, Housh, Beck, Herda, Hartman, and Stout. Inter-individual variability patterns of response among the mechanomyographic and electromyographic amplitude and mean power frequency during isometric ramp muscle actions. *Journal of Electromyography and Clinical Neurophysiology*, (In Press).

PET 5392

Dept Comments