BIL 113 - Honors Readings in Biology
Human Biodynamics – Physiology of Human Performance

Some JOURNALS in Human Performance Physiology, Sports Physiology, & Medicine

1) American Journal of Cardiology:  
http://www.elsevier.com/wps/find/journaldescription.cws_home/525048/description#description

2) Athletic Therapy Today:  
http://www.humankinetics.com/products/journals/journal.cfm?id=ATT

3) Journal of Exercise Physiology (online):  
http://www.css.edu/users/tboone2/asep/fldr/fldr.htm

4) Clinical Exercise Physiology:  
http://www.humankinetics.com/products/journals/journal.cfm?id=CEP

5) British Journal of Sports Medicine:  
http://bjsm.bmjournals.com/

6) Canadian Journal of Applied Physiology:  
http://www.humankinetics.com/products/journals/journal.cfm?id=CJAP

7) European Journal of Applied Physiology:  
http://springerlink.metapress.com/app/home/journal.asp?wasp=376lyqwqpcwd1rydad3&referrer=parent&backto=linkingpublicationresults,1:100513,1

8) Exercise and Sports Sciences Reviews:  http://www.lww.com/iproduct/?0091-6331

9) International Journal of Sports Medicine:  
http://www.thieme.de/sportsmed/fr_inhalt.html

http://jap.physiology.org/papbyrecent.shtml

11) Journal of Sports Rehabilitation:  
http://www.humankinetics.com/products/journals/journal.cfm?id=JSR


13) Journal of Sports and Exercise Psychology:  
http://www.humankinetics.com/products/journals/journal.cfm?id=JSEP


15) Sociology of Sports Journal:  
http://www.humankinetics.com/products/journals/journal.cfm?id=SSJ

16) Human Movement Science:  
http://www.elsevier.com/wps/find/journaldescription.cws_home/505584/description#description

17) Journal of aging and Physical Activity:  
http://www.humankinetics.com/products/journals/journal.cfm?id=JAPA

18) The Physician and Sportsmedicine:  
http://www.physsportsmed.com/
Some Web Resources:


3) Physiology of Sport and Exercise
   http://www.humankinetics.com/physiologyofsportandexercise/

4) Health and Human Prerformance Weblinks by McGraw-Hill

5) Defense Medical and Research Centers of Excellence – Human Performance

6) Virginia Commonwealth University – Physical Education & Sports Science resources
   http://www.library.vcu.edu/guides/sports.html

7) Australian Sports Commission – Sports Training & Fitness website

Some Reference BOOKS in SPORTS MEDICINE, EXERCISE and PHYSIOLOGY.

1) Biochemistry Primer for Exercise Science by Michael E. Houston

2) Encyclopedia of Physical Education, Fitness and Sports by Thomas K. Cureton
   Publisher National Association for Sport & Physical Education, NASPE (1985)
   ISBN 0-88314-293-7 / 0883142937

3) Exercise Physiology: Energy, Nutrition, and Human Performance
   by William D. McArdle, Frank I. Katch, Victor L. Katch
   Publisher: Lippincott Williams & Wilkins; 5th edition (January 15, 2001) ISBN: 0781725445

4) Physiology of Sport and Exercise, by Jack H. Wilmore and David L. Costill.

5) Kinesiology with PowerWeb Health and Human Performance, by Michael Wade & John Baker


8) Techniques in Musculoskeletal Rehabilitation, by William Prentice.

9) Cardiovascular and Pulmonary Physical Therapy, by Lawrence Cahalin & William DeTurk.

10) Current Diagnosis & Treatment in Orthopedics, by Harry Skinner.

11) The Physiological Basis of Physical Education and Athletics

12) Physiology of Exercise

13) Sports Fitness and Training, by Richard Mangi, Peter Jokl, & William O. Dayton,

14) Encyclopedia of Physical Education, Fitness, and Sports: Training, Environment, Nutrition,
    & Fitness by G. Allan Publisher: Brighton Pub Co; (1981) ASIN: 089832016X
BIL 113 - Physiology of Human Performance – Suggested Topics

1) Sports Related Injuries in Children; Head Injuries in Soccer
2) Arrhythmias and the Healed Myocardial Infarction
3) Erythropoietin and Blood Doping
4) Arthroscopic Anterior Cruciate Ligament Reconstruction
5) Steroid and Human Growth Hormones use in Athletics
6) Aids and the Athlete
7) Effect of Sleep Deprivation on Exercise Performance
8) Endurance Exercise & Pathological Processes
9) Immunoglobulin Levels in Athletes & Sedentary Controls
10) Treatment of Shoulder Injuries in Swimming
11) Effect of Caffeine on Lactate Responses in Incremental Exercise
12) Eating Disorders in Athletes; Anorexia Nervosa and Bulimia
13) Athletic Footwear & Chronic Overloading
14) Can Sports Participation Slow Aging
15) Muscle Glycogen Synthesis after Exercise
16) Intensive Training in Young Athletes
17) Physiology & Biochemical Changes during Triathlons
18) Carbohydrate & Fluid needs of the Soccer Player
19) A/B Types & Psychophysiological Responses to Exercise
20) Cryotherapy in Sports Injuries
21) Magnetic Resonance Imaging
22) Acute Knee Injury in Wrestling
23) Physical Activity Counseling - Preventive Intervention
24) Physicians Get In Tune with Performing Artists
25) Cymbal Player's Shoulder; Hand Difficulties Among Musicians
26) Plasma Volume Changes in Weight Lifters
27) Menstrual Irregularity & Stress Fractures in Female Runners; Hematuria
28) Gastric Emptying during Prolonged Cycling Exercise
29) Skeletal Muscle Characteristics in Sedentary Black & White Males
30) 4mM Lactate Level as Index of Exercise Performance in 11-13 olds
31) Mitochondrial DNA Sequence Polymorphism VO2max & Endurance Training
32) Additive Effects of Caffeine & Cold Water during Submax leg Exercise
33) Iron Status in Athletes Involved in Intense Physical Activity
34) Glucose Induced Exertional Fatigue in Muscle P-fructokinase Deficiency
35) Marfan's Syndrome
36) Effect of Yoga Training on Serum LDH Levels
37) Stress and Performance in Sport
38) Influence of Preferred Relaxing Music on State Anxiety & Physiology
39) Plica Syndrome & Arthroscopic Intervention
40) Barotrauma in Diving
41) Tennis Elbow: Surgical and Manipulative Treatment
42) Epilepsy and Sports Participation
43) Exercise Induced Asthma
44) Head Injuries in Soccer
WHAT do we mean by HUMAN PERFORMANCE PHYSIOLOGY?

We live in an Age of the Athletics and Human Performances, 2004 Olympics in Athens last month: great performances & doping scandals

legitimate occupation - world wide – Marion Jones, M. Green
serious avocation - 15,000 people run NYC marathon
source national pride - NBC $900 million on '00 Olympics
entertainment & big business - Shaq & Tiger endorsements

ININVOLVEMENT
70% of Americans are involved in sport
either as a participant or as a spectator.
How many of you 1) lettered in junior high or high school
2) or are a collegiate varsity athlete

WHAT is your FAVORITE participatory and Spectator Sport? and Why?

What do you think is the importance of Sport to our cultural - our society?

IS IT JUSTIFIABLE? Does a healthy body = healthy mind?

Is Human Performance/Sport Physiology/Medicine a real science discipline?

Possible TOPIC AREAS for Presentations

Training methodologies
interval, hypoxic, aerobic, endurance, tapers
isometric, isotonic, isokinetic
high altitude training & blood doping

Ergonomics and biomechanics

IOC/NCAA Sports Medicine Policies

Anaerobic thresholds/lactate testing

Drugs/nutritional aids - stimulants, ergogenics, depressants, vasodilators

Diet: carbohydrate loading
fluid replacements
kidney function during exercise

Sports psychology - psycho-motor aids - music

Endocrines

Injuries

Your own personal burning issue