

George Mason University  
School of Recreation Health and Tourism  
Division of Health and Human Performance  
Exercise, Fitness and Health Promotion

Spring 2017 – EFHP 640-001: Principles of Strength and Conditioning (3)

DAY/TIME:	TTH 10:30-11:45 pm	LOCATION:	204 Colgan Hall
PROFESSOR:	Margaret Jones, PhD, CSCS*D	EMAIL ADDRESS:	Mjones15@gmu.edu
OFFICE HOURS:	TTH 12:00-1:00	PHONE NUMBER:	703-993-3247

### **PREREQUISITES**

Graduate standing or permission of instructor.

### **UNIVERSITY CATALOG COURSE DESCRIPTION**

Analyzes exercise techniques, training program designs, organization and administration, and testing and evaluation using scientific principles of strength and conditioning.

### **LEARNER OUTCOMES or OBJECTIVES**

Upon completion of EFHP 640 students should be able to:

1. Describe muscle, nerve anatomy, bone, and connective tissue anatomy and physiology and their adaptations to exercise training.
2. Explain the biomechanics of exercise training and how it applies to exercise prescription.
3. Analyze responses of several body systems and their responses to exercise.
4. Discuss the adaptations that occur during both aerobic and anaerobic exercise.
5. Discuss psychology of exercising individuals and their performance, taking into account nutrition, performance enhancing substances and the affect of age and sex related differences.
6. Evaluate exercise testing and administration techniques.
7. Interpret baseline scores and norms associated with exercise tests.
8. Assess aerobic exercise, anaerobic exercises, plyometrics, and speed and agility training techniques.
9. Design training programs that includes strength and conditioning principles including warm-ups and cool-down, periodization, exercise testing, conditioning, plyometrics, and flexibility.
10. Discuss strength and conditioning facility layouts and policies and procedures, as well as discuss risk management.

### **COURSE OVERVIEW**

Emphasis will be placed upon assessment, description, and analyses of movement and designing training programs to enhance performance and prevent injury using research-based scientific principles of strength and conditioning. While this course will assist those who desire to challenge certification examinations including, but not limited to: the American College of Sports Medicine (ACSM)'s – Certified Personal Trainer (CPT), the National Strength and Conditioning Association's (NSCA) Certified Strength and Conditioning Specialist (CSCS), or the American Council on Exercise (ACE)'s Personal Trainer Certification (PTC) examinations, it

is NOT designed as an exam preparation course.

### **NATURE OF COURSE DELIVERY**

This course will include lecture, online and laboratory instruction.

### **REQUIRED TEXTBOOK**

Bompa, Tudor O. and Haff, G. Gregory, *Periodization: Theory and Methodology of Training (5th edition)*. Human Kinetics, Champaign, 2009. ISBN: 978-0-7360-7483-4.

### **EVALUATION**

A. Written Examinations		
Midterm Exam		20%
Final Exam		25%
B. Class participation		10%
C. Two Assignments (article, program)		10% x 2 = 20% total
D. Final Project		25%

**FINAL EXAM:** 10:30 – 1:15 pm, Tuesday, May 16, 2016. Please remember to bring a Scantron sheet.

### **Grading Scale**

A = 93.5 – 100	B+ = 87.5 – 89.4	C+ = 77.5 – 79.4	D = 59.5 – 69.4
A- = 89.5 – 93.4	B = 82.5 – 87.4	C = 72.5 – 77.4	F = 0 – 59.4
	B- = 79.5 – 82.4	C- = 69.5 – 72.4	

### **Final Grades:**

Grades are final following 24 hours after posting date.

### **PROFESSIONAL BEHAVIOR:**

EFHP students are expected to exhibit professional behaviors and dispositions at all times. Depending upon the setting professionalism may appear different, but typically consists of similar components. For EFHP graduate students in a classroom setting, professionalism generally comprises the following components:

- **Attendance** – Students are expected to attend class, be on time, and pay attention. A grade of zero will be assigned to any missed assignment without prior permission from the instructor. Late assignments will receive a letter grade deduction for each 24-hour period past the deadline. If you cannot attend a class for a legitimate reason please notify the instructor in advance via email. If you have to miss a class due to something out of your control, contact the instructor within 24 hours of the event to notify them of what happened and to see if there is anything you need to do to make up your absence.

- **Communication** – When communicating with the instructor and classmates, either face-to-face or via email (see below), students should address the other person with respect, use appropriate language, and maintain a pleasant demeanor. Students who do not may be asked to leave class, and will receive a grade of zero for all assignments or activities missed during that class period.

E-mail Correspondence - Messages must be in a professional format and originate from a George Mason University email address:

Dear Dr. Jones (*Beginning salutation*),

I have a question in regard to one of the assignments. (*Text body*)

Respectfully, (*Ending Salutation*)

Sam Student (*Your name*)

- **Classroom Demeanor and Participation** – Students are expected to attend all classes, participate in class discussions and activities, complete in-class exercises, and fulfill all assignments. Demonstrate that you have an interest in the subject matter. Participation in lab activities is mandatory. Anyone behaving unsuitably may be asked to leave (sleeping, texting, using laptops/tablets inappropriately). University policy states that all sound emitting devices shall be turned off during class unless otherwise authorized.
- **Responsibility/Accountability** – Professionals take responsibility for their actions and are accountable. This can occur at multiple levels but generally consists of completing assignments on time, submitting work that is of the appropriate quality, honoring commitments and owning up to mistakes. Late assignments will receive a letter grade deduction for each 24-hour period past the deadline.
- **Academic Honesty/Integrity** – EFHP graduate students are expected to be honest with the instructor, classmates and themselves. Professionals keep their word when committing to something and act in an ethical manner. Students are held to the standards of the George Mason University Honor Code. Students are expected to honestly represent their work. The possible situations when a student could violate these expectations range from incorrectly citing or failing to cite references/footnotes within papers and projects to cheating on an examination or assignment. Academic integrity is the responsibility a student assumes for honestly representing all academic work. This includes but is not limited to quizzes, examinations, projects, and other forms of oral and written endeavors. Students who are caught cheating on exams, quizzes, or assignments will receive a grade of zero and will be reported to the office of Academic Integrity.
- **Self-Improvement/Self-awareness** – One should be aware of their strengths/weaknesses and constantly seek to improve. Professionals regularly seek opportunities to increase their knowledge and improve their current skill set.

CORE VALUES COMMITMENT: The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

## **GMU Policies and Resources for Students**

### *Policies*

- Students must adhere to the guidelines of the University Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

### *Campus Resources*

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/api/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing (see <http://writingcenter.gmu.edu/>).
- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance (see <http://caps.gmu.edu/>).
- The George Mason University Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <http://studentsupport.gmu.edu/>, and the OSS staff will follow up with the student.

**For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/>.**

**Tentative Course Schedule** (Faculty reserves the right to alter the schedule as necessary)

<b>Date</b>	<b>Topic</b>	<b>Readings/Assignments</b>
1/24	Course Introduction	
1/26	Training Theory: Basis for Training	B & H: CH 1
1/31	<b>Lab 1: FFX field house lab</b>	<i>Please dress appropriately for participation.</i>
2/2	Training Theory: Principles of Training	B & H: CH 2
2/7	Training Theory: Preparation for Training	B & H: CH 3
2/9	Training Theory: Variables of Training	B & H: CH 4
2/14	Training Theory: Rest and Recovery	B & H: CH 5
2/16	Assignment 1: Article	Articles; Group 1 proposal presentation
2/21	<b>Lab 2: FFX field house lab</b>	<i>Please dress appropriately for participation.</i>
2/23	Periodization: Annual Training Plan	B & H: CH 6
2/28	Periodization: Annual Training Plan	B & H: CH 6
3/2	Assignment 1: Article	Articles; Group 2 proposal presentation
3/7	<b>Lab 3: FFX field house lab</b>	<i>Please dress appropriately for participation.</i>
3/9	<b>Midterm Exam</b>	Remember to bring a Scantron sheet.
3/14, 3/16	No Class	Spring Break!!
3/21	Periodization: Peaking for Competition	B & H: CH 7
3/23	Assignment 2: Program	Programs; Group 3 proposal presentation
3/28	<b>Lab 4: FFX field house lab</b>	<i>Please dress appropriately for participation.</i>
3/30	Periodization: Training Cycles	B & H: CH 8
4/4	Periodization: Training Cycles, Workout Planning	B & H: CH 8,9
4/6	Assignment 2: Program	Programs; Group 4 proposal presentation
4/11	<b>Lab 5: FFX field house lab</b>	<i>Please dress appropriately for participation.</i>
4/13	Periodization: Workout Planning Training Methods: Strength and Power	B & H: CH 9,10
4/18	Training Methods: Strength and Power, Endurance Training	B & H: CH 10,11
4/20	Training Methods: Speed and Agility	B & H: CH 12
4/25	Training Methods: Speed and Agility	B & H: CH 12
4/27	Group Project work day	
5/2	Final Project Presentations	<b>Business casual dress is required:</b> <a href="http://www.entrepreneur.com/article/249188">http://www.entrepreneur.com/article/249188</a>
5/4	Final Project Presentations	<b>Business casual dress is required:</b> <a href="http://www.entrepreneur.com/article/249188">http://www.entrepreneur.com/article/249188</a>



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