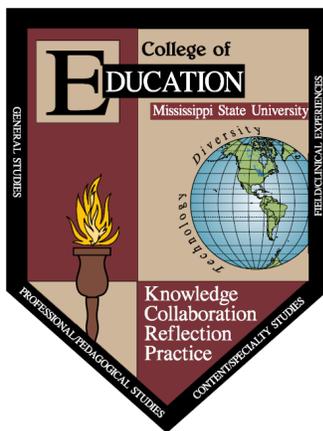


**MISSISSIPPI STATE UNIVERSITY  
COLLEGE OF EDUCATION**

**DEPARTMENT of KINESIOLOGY  
COURSE SYLLABUS**

<b>Course Prefix &amp; Number:</b>	EP 4153-6153
<b>Course Title:</b>	Training Techniques in Exercises and Sport
<b>Credit Hours:</b>	Three (3) semester hours
<b>Type of Course:</b>	Lecture
<b>Catalog Description:</b>	Training techniques used for exercise and sport and their acute and chronic effects.

**College of Education Conceptual Framework:**



The faculty in the College of Education at Mississippi State University are committed to assuring the success of students and graduates by providing superior learning opportunities that are continually improved as society, schools, and technology change. The organizing theme for the conceptual framework for the College of Education at Mississippi State University is educational professionals - dedicated to continual improvement of all students' educational experiences. The beliefs that guide program development are as follows:

1. **KNOWLEDGE** - Educational professionals must have a deep understanding of the organizing concepts, processes, and attitudes that comprise their chosen disciplinary knowledge base, the pedagogical knowledge base, and the pedagogical content knowledge base. They must also know how to complement these knowledge bases with the appropriate use of technology.
2. **COLLABORATION** - Educational professionals must continually seek opportunities to work together, learn from one another, forge partnerships, and assume positions of responsibility.
3. **REFLECTION** - Educational professionals must be willing to assess their own strengths and weaknesses through reflection. They must also possess the skills, behaviors, and attitudes necessary to learn, change, and grow as life-long learners.
4. **PRACTICE** - Educational professionals must have a rich repertoire of research-based strategies for instruction, assessment, and the use of technologies. They must be able to focus that array of skills on promoting authentic learning by all students or clients, while exhibiting an appreciation and commitment to the value and role of diversity.

## **Course Objectives:**

1. Apply scientific knowledge to train athletes and clients for the primary goals of improving athletic performance and fitness. (CFPO 1, 2, 3)
2. Define and describe the principles of integrated training. (CFPO 1, 2)
3. Differentiate between the types of flexibility techniques. (CFPO 1)
4. Perform and instruct the types of flexibility techniques for given situations. (CFPO 4)
5. Understand how cardiorespiratory training is used within an integrated program to enhance performance. (CFPO 3)
6. Understand the importance and purpose of balance in performance enhancement and injury prevention. (CFPO 2)
7. Understand how to implement plyometric training within the guidelines of an integrated training program. (CFPO 3, 4)
8. Describe speed, agility, and quickness training programs for athletes. (CFPO 1)
9. Learn how to conduct sport-specific testing sessions. (CFPO 3, 4)
10. Learn how to demonstrate and teach proper exercise techniques. (CFPO 4)
11. Learn how to design and implement safe and effective strength training and conditioning and personal training programs. (CFPO 3)
12. Learn how to provide guidance regarding nutrition and performance-enhancing substances. (CFPO 2)
13. Apply exercise prescription principles for training variation, injury prevention, and reconditioning. (CFPO 1, 2)

## **Topics to Be Covered:**

1. Structure and Function of the Muscular, Neuromuscular, Cardiovascular, and Respiratory Systems; 3hrs
2. Bioenergetics of Exercise and Training; 3hrs
3. Endocrine Responses to Resistance Exercise; 3hrs
4. Adaptations to Anaerobic Training Programs; 3hrs
5. Adaptations to Aerobic Endurance Training Programs; 3hrs
6. Age and Sex Related Differences and Their Implications for Resistance Exercise; 3hrs
7. Psychology of Athletic Preparation and Performance; 3hrs
8. Performance Enhancing Substances; 3hrs
9. Nutritional Factors in Health and Performance; 3hrs
10. Warm-Up and Stretching; 3hrs
11. Resistance Training and Spotting Techniques; 3hrs
12. Resistance Training; 3hrs
13. Plyometric Training; 3hrs
14. Speed, Agility, and Speed-Endurance Development; 3hrs
15. Periodization 3hrs.

## **Texts (required):**

Essentials of Strength Training and Conditioning. (2008). 3<sup>rd</sup> Ed. Human Kinetics.

## **Methods of Instruction:**

A variety of teaching approaches and techniques are modeled including:

1. Lecture and discussion, 3 hours per week.
2. Problem-based learning

## **Student Activities:**

1. The student will identify and denote the function of the muscular system (Obj. #1);
2. The student will demonstrate and guide proper warm up principles for exercise (Obj. #10);
3. The student will demonstrate training differences for genders via a training program (Obj. #6);
4. The students will prepare a paper on 2 performance enhancing substances (Obj. #8);
5. The students will demonstrate proper spotting techniques on various exercises (Obj. #11);
6. The students will explain how to obtain 1RM and percentage projection of 1RM (Obj. #11,12);
7. The student will design a program incorporating resistance training, plyometric training, speed & agility training (Obj. #12,13,14).

## **MSU Honor Code:**

**“As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.”**

*Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code. For additional information please visit: <http://www.honorcode.msstate.edu/>*

## **Technology:**

1. Computer & Projector: PowerPoint Lecture(s)
2. Blackboard: submitting assignments and quizzes

## **Diversity:**

Diversity issues will be addressed in Chapters 18 and 21 in the form of lecture and classroom discussion.

**Disability:**

It is the policy of Mississippi State University to accommodate students with special needs and learning disabilities as per the MSU Student Support Services policy. Students seeking accommodations on the basis of a disability or special need must identify themselves to the Office of Student Support Services (website: <http://www.msstate.edu/dept/sss/>) to verify eligibility. Additional documentation guidelines may be obtained by contacting the Office of Student Support Services directly, or via the web at <http://www.msstate.edu/dept/audit/91130.html>. Academic accommodations and services are based upon an individual's needs. All documentation is confidential.

**Field Component:**

NA

**Evaluation of Student Progress:**

A=90% or above

B=80-89%

C=70-79%

D=60-69%

Four written exams

400 pts.

Ten Assignments

100pts.

**Bibliography:**

Brooks, G.A., Fahey, T.D., & Baldwin, K.M. (2005). *Exercise physiology: Human bioenergetics and its applications (4<sup>th</sup> ed.)*. McGraw Hill, Inc., New York.

Guyton, A.C., & J.E. Hall. (2000). *Textbook of medical physiology (10th ed.)*. Philadelphia: W.B. Saunders Co.

McArdle, W. D., Katch, F. I., & Katch, Victor L. (2000). *Essentials of exercise physiology (2nd ed.)*. Philadelphia: Lippincott, Williams, and Wilkins.

NASM. (2010). *Essentials of Sport Performance Training*, 1<sup>st</sup> ed. Baltimore, MD: Lippincott Williams & Wilkins.

Principles and Practice of Resistance Training, 1<sup>st</sup> ed. (2007). Champaign, IL: Human Kinetics.