COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Course Number:</th>
<th>PET 4330</th>
<th>Course Title:</th>
<th>Applied Kinesiology</th>
</tr>
</thead>
</table>
| Prerequisite(s): | BSC 1005 – Biological Science  
PET 2300 – Applied Human Anatomy | Course Credit: | 3 |
| Course Credit: | 3 | Course Hours: | 3 |
| College: | Education | Required Text(s): | Sport Mechanics for Coaches (second edition) by Carr Human Kinetics 2004 |
| Department: | Health, Physical Education and Recreation | Supplies: | |
| Faculty Name: | Dr. Brian M. Hickey | Term and Year: | Spring 2010 |
| Office Location: | MPC 208 | Place and Time: | MPC 214 - T, Th 5:00 PM to 6:15 PM |
| Office Hours | Monday 11 am to noon  
1 pm to 5 pm | Telephone: | 850-561-2736 |
| | Tuesday 3:30 pm to 5 pm | e-mail: | brian.hickey@famu.edu |
| | Wednesday 3:30 pm to 5 pm | | |
| | Thursday 3:30 pm to 5 pm | | |
| | Friday 11 am to 2 pm | | |
| | Saturday | | |

Course Description
This course examines applied kinesiology, the science of human movement, so it can be understood and applied in both teaching and coaching settings.

Course Purpose
The purpose of this course is to provide students with a working knowledge kinesiology so as to facilitate the process of becoming an exemplary physical educator.

Conceptual Framework
The Conceptual Framework in the Professional Education Unit (PEU) at Florida A&M University is an integrated approach to providing educational experiences that result in exemplary professional educators. The Framework is comprised of six themes with the mission of developing high quality classroom teachers, administrators and support personnel. The term “exemplary” refers to the kind of graduates the PEU strives to produce. The figure below provides a diagram of the Exemplary Professional Conceptual Framework

F=Florida Educator Accomplished Practices Standards (FEAPS)  
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)  
(K)=Knowledge   (S)=Skill   (D)=Disposition  

Approved/Revised 10/30/07
TECHNOLOGY

•CF 2
•Through this focal area, the FAMU professional education candidate will:

| CF: | 2.1 (S) | Use of available technology and software to support student learning. | F: 4,12 | I: 6 |
| CF: | 2.2 (S) | Use technology to manage, evaluate and improve instruction. | F: 1,4,10,12 | I: 6,7 |
| CF: | 2.3 (K) | Know fundamental concepts in technology. | F: 12 | I: 1,6 |
| CF: | 2.4 (K) | Understand fundamental concepts in technology. | F: 2,12 | I: 6 |
| CF: | 2.5 (S) | Use fundamental concepts in technology. | F: 12 | I: 6 |
| CF: | 2.6 (S,D) | Facilitate access to technology for students. | F: 12 | I: 6 |
| CF: | 2.7 (S) | Facilitate the use of technology by students. | F: 4,12 | I: 6 |

VALUES

•CF 3
•Through this focal area, the FAMU professional education candidate will:

| CF: | 3.1 (S) | Work with colleagues in a professional manner. | F: 6 | I: 2,5 |
| CF: | 3.3 (S,D) | Show respect for varied (groups) talents and perspectives. | F: 5,6 | I: 3 |
| CF: | 3.4(D) | Be committed to individual excellence. | F: 3,9 | I: 5,9 |
| CF: | 3.5(D) | Recognize the importance of peer Relationships in establishing a climate for learning. | F: 7,2 | I: 5,10 |

CRITICAL THINKING

•CF 4
•Through this focal area, the FAMU professional education candidate will:

| CF: | 4.1 (K) | Understand a variety of instructional/professional strategies to encourage student development of critical thinking and performance. | F:4,7 | I: 4 |
| CF: | 4.2 (S) | Use a variety of instructional/professional strategies to encourage students’ development of critical thinking and performance. | F:2,7 | I: 4 |
| CF: | 4.3 (D) | Value critical thinking and self-directed learning as habits of mind. | F: 4 | I: 1,4 |

F=Florida Educator Accomplished Practices Standards (FEAPS)
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)
(K)=Knowledge (S)=Skill (D)=Disposition

Approved/Revised 10/30/07
Acquire performance assessment techniques and strategies that measure higher order thinking skills of student. F: 1,4  I: 1,8

Demonstrate the use of higher order thinking skills. F: 8  I: 4

PROFESSIONALISM

• CF 5
• Through this focal area, the FAMU professional education candidate will:

| CF: 5.1 (K) | Know the content | F: 8 | I: 1 |
| CF: 5.3 (D) | Demonstrate commitment to professional growth & development. | F: 3,7 | I: 9 |
| CF: 5.6 (S) | Display effective verbal & non-verbal communication techniques to foster valuable interaction in the classroom. | F: 2 | I: 6 |
| CF: 5.7 (S,D) | Display appropriate code of conduct including dress, language, and respective behavior. | F: 9 | I: 5,9 |

URBAN/RURAL EDUCATION

• CF6
• Through this focal area, the FAMU professional education candidate will:

| CF: 6.1 (S) | Be able to work in school settings with varied levels of human and material resources. | F: 9,10,11 | I: 10 |
| CF: 6.4 (S) | Communicate effectively with students’ parents and the community. | F: 5,11 | I: 6 |

Overall Goals of the Course
Upon successful completion of this course, students will be able to:
1. Identify the principle muscles and explain their primary functions.
2. Identify various human motions in the fields of sport and exercise including the bones, ligaments, tendons and muscles that produce the motion.
3. Explain and apply the laws of motion and principles of equilibrium and levers.
4. Analyze the mechanics of a skill or sequence of movements and suggest ways by which the performer may improve their performance.

Specific Behavioral Objectives
• Identify bones, ligaments and tendons and describe their general characteristics
• Identify the relationship between structure and function
• Qualitatively analyze vectors, force, work and power
• Cultivate an understanding of the scientific method as it applies to human motion
• Understand the basics of kinetics
• Apply knowledge of kinesiology to analyzing and teaching sport skills

National and State Standards Addressed in the Course

Interstate New Teacher Assessment and Support Consortium (INTASC) Standards

Standard 1: Subject Matter
The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

Standard 2: Student Learning
The teacher understands how children and youth learn and develop, and can provide learning opportunities that support their

F=Florida Educator Accomplished Practices Standards (FEAPS)
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)
(K)=Knowledge  (S)=Skill  (D)=Disposition

Approved/Revised 10/30/07
intellectual, social and personal development.

**Standard 4: Instructional Strategies**
The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

**Standard 5: Learning Environment**
The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

**Standard 6: Communication**
The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

**Standard 7: Planning Instruction**
The teacher plans and manages instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

**Standard 8: Assessment**
The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

**Standard 9: Reflection and Professional Development**
The teacher is a reflective practitioner who continually evaluates the effects of her/his choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

**Professional Organization/Learned Society Standards**

<table>
<thead>
<tr>
<th>National Association for Sport and Physical Education (NASPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1: Scientific &amp; Theoretical Knowledge</strong></td>
</tr>
<tr>
<td>1.1 Describe &amp; apply physiological and biomechanical concepts related to skillful movement, physical activity and fitness</td>
</tr>
<tr>
<td>1.2 Describe &amp; apply motor learning, psychological, and behavioral theory related to skillful movement, physical activity and fitness</td>
</tr>
<tr>
<td>1.3 Describe &amp; apply motor development theory and principles related to skillful movement, physical activity, and fitness</td>
</tr>
<tr>
<td>1.5 Analyze &amp; correct critical elements of motor skills and performance concepts</td>
</tr>
<tr>
<td><strong>Standard 2: Skill and Fitness Based Competence</strong></td>
</tr>
<tr>
<td>2.3 Demonstrate performance concepts related to skillful movement in a variety of physical activities</td>
</tr>
<tr>
<td><strong>Standard 3: Planning and Implementation</strong></td>
</tr>
<tr>
<td>3.1 Design &amp; implement short and long term plans that are linked to program and instructional goals as well as a variety of student needs</td>
</tr>
<tr>
<td>3.2 Develop appropriate (e.g., measurable, developmentally appropriate, performance based) goals and objectives aligned with local, state, and/or national standards that lead to student learning</td>
</tr>
<tr>
<td>3.3 Design &amp; implement content that is aligned with lesson objectives</td>
</tr>
<tr>
<td>3.4 Plan &amp; implement effective demonstrations, explanations, instructional cues and prompts to link physical activity concepts to appropriate learning experiences</td>
</tr>
<tr>
<td>3.8 Design &amp; implement student learning experiences that integrate technology</td>
</tr>
<tr>
<td><strong>Standard 4: Instructional Delivery and Management</strong></td>
</tr>
<tr>
<td>F=Florida Educator Accomplished Practices Standards (FEAPS)</td>
</tr>
<tr>
<td>I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)</td>
</tr>
<tr>
<td>(K)=Knowledge (S)=Skill (D)=Disposition</td>
</tr>
</tbody>
</table>

Approved/Revised 10/30/07
4.1 Demonstrate effective verbal and non-verbal communication skills across a variety of instructional formats

4.2 Provide effective instructional feedback for skill acquisition, student learning, and motivation

4.3 Recognize the changing dynamics of the environment and adjust instructional tasks based on student responses

**Standard 5: Impact on Student Learning**

5.1 Select or create appropriate assessments that will measure student achievement of goals and objectives

5.2 Use appropriate assessments to evaluate student learning before, during, and after instruction

**Standard 6: Professionalism**

6.1 Demonstrate behaviors that are consistent with the belief that all students can become physically educated individuals

6.3 Demonstrate behaviors that are consistent with the professional ethics of highly qualified teachers

6.4 Communicate in ways that convey respect and sensitivity

---

**Florida Educator Accomplished Practices (FEAPs)**

2. **COMMUNICATION**

2.1 The preprofessional teacher recognizes the need for effective communication in the classroom and is in the process of acquiring techniques which she/he will use in the classroom.

3. **CONTINUOUS IMPROVEMENT**

3.1 The preprofessional teacher realizes that she/he is in the initial stages of a lifelong learning process and that self-reflection is one of the key components of that process. While her/his concentration is, of necessity, inward and personal, the role of colleagues and school-based improvement activities increases as time passes. The teacher’s continued professional improvement is characterized by self-reflection, working with immediate colleagues and teammates, and meeting the goals of a personal professional development plan.

4. **CRITICAL THINKING**

4.1 The preprofessional teacher is acquiring performance assessment techniques and strategies that measure higher order thinking skills in students and is building a repertoire of realistic projects and problem-solving activities designed to assist all students in demonstrating their ability to think creatively.

8. **KNOWLEDGE OF SUBJECT MATTER**

8.1 The preprofessional teacher has a basic understanding of the subject field and is beginning to understand that the subject is linked to other disciplines and can be applied to real-world integrated settings. The teacher’s repertoire of teaching skills includes a variety of means to assist student acquisition of new knowledge and skills using that knowledge.

10. **PLANNING**

10.1 Recognizing the importance of setting high expectations for all students, the preprofessional teacher works with other professionals to design learning experiences that meet students’ needs and interests. The teacher candidate continually seeks advice/information from appropriate resources (including feedback), interprets the information, and modifies her/his plans appropriately. Planned instruction incorporates a creative environment and utilizes varied and motivational strategies and multiple resources for providing comprehensible instruction for all students. Upon reflection, the teacher continuously refines outcome assessment and learning experiences.

12. **TECHNOLOGY**

---

F=Florida Educator Accomplished Practices Standards (FEAPS)

I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)

(K)=Knowledge (S)=Skill (D)=Disposition

*Approved/Revised 10/30/07*
12.1 The preprofessional teacher uses technology as available at the school site and as appropriate to the learner. She/he provides students with opportunities to actively use technology and facilitates access to the use of electronic resources. The teacher also uses technology to manage, evaluate, and improve instruction.

**Florida Teacher Certification Examination (FTCE) Subject Area Examination (SAE) Competencies and Skills**

**Physical Education K-12**

**5 Knowledge of skill and movement principles in physical activity**

1. Identify and apply the concepts of spatial awareness, body awareness, relationships, and effort qualities as they relate to movement forms.

2. Identify the fundamental movement patterns, including locomotor, nonlocomotor, and manipulative skills, as applied to movement forms.

3. Identify sequentially progressive activities that promote the acquisition of psychomotor, cognitive, and affective skills.

4. Identify appropriate cues, prompts, and strategies for teaching motor skills.

5. Apply mechanical principles of motion to movement forms.

6. Identify strategies to develop correct skill performance.

7. Analyze the mechanics of a skill or sequence of movements and identify ways in which the performer can improve the performance.

8. Identify how components of skill-related fitness affect performance.

**12 Knowledge of technology**

1. Identify current technological resources for accessing information on physical activity and health.

2. Identify appropriate uses of technology in the instructional process.

F=Florida Educator Accomplished Practices Standards (FEAPS)
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)
(K)=Knowledge (S)=Skill (D)=Disposition

Approved/Revised 10/30/07
<table>
<thead>
<tr>
<th>Assignment</th>
<th>Behavioral objectives</th>
<th>INTASC Standards</th>
<th>NASPE</th>
<th>FEAPs</th>
<th>FTCE SAE</th>
<th>PEU Conceptual Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Set 1</td>
<td>Communication</td>
<td>1.10,1.13,1.20,1.21,1.2 2,1.23,1.24,1.31,1.32,1.33,1.35,1.36,2.10,2.11,2.13,2.21,2.22</td>
<td>1,2</td>
<td>2,3,4,8,1 0,11</td>
<td>5.1,5.2,5.3 6.7,6.8,6.9</td>
<td>1.1,2.1,2,2.3,1.3,3.4,3,5,4.1,4.3,4.4,4,5.5.1</td>
</tr>
<tr>
<td>Problem Set 2</td>
<td>Content Knowledge</td>
<td>1.10,1.13,1.20,1.21,1.2 2,1.23,1.24,1.31,1.32,1.33,1.35,1.36,2.10,2.11,2.13,2.21,2.22</td>
<td>1,2</td>
<td>2,3,4,8,1 0,11</td>
<td>5.4,5.5,5.6 6.7,6.8,6.9</td>
<td>1.1,2.1,2,2.3,1.3,3.4,3,5,4.1,4.3,4.4,4,5.5.1</td>
</tr>
<tr>
<td>Inquiry Project</td>
<td>Critical Thinking</td>
<td>1.10,1.13,1.20,1.21,1.2 2,1.23,1.24,1.31,1.32,1.33,1.35,1.36,2.10,2.11,2.13,2.21,2.22,6.10,6.13,6.14,6.3 0,6.31,6.33,6.35,7.10,7.13,7.20,7.21,7.22</td>
<td>1,2</td>
<td>1,2,3,4,8,10,11,12</td>
<td>5.7,5.8,6.7 6.9</td>
<td>1.1,2.1,2,2.3,1.3,3.4,3,5,4.1,4.3,4.4,4,5.5.1</td>
</tr>
</tbody>
</table>

**Topical Outline**

1. Review of basic anatomy
2. Descriptions of human motion (vocabulary)
3. Muscles, ligaments, tendons and bones involved in producing human motion
   - primary emphasis will be placed on gross motor movements
   - movement cascade
4. Principles of Physics that govern human movement
   - force, work, power
   - Newton’s Laws of Motion
   - lever arms
   - centers of mass
   - stability
5. Analyzing sports skills
6. Identifying and correcting errors
7. Mechanics of selected sport skills

**Teaching Methods**

Lecture
Field experience
Laboratory experience

**Course Evaluation**

30% weekly assignments
10 % disposition
20% action research project
40% problem sets (4 @ 10% each)

No late work will be accepted.

F=Florida Educator Accomplished Practices Standards (FEAPS)
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)
(K)=Knowledge  (S) Skill  (D)=Disposition

Approved/Revised 10/30/07
Grading
Grades will be assigned based on a 100 point scale.
Letter grades will be assigned as follows:
A: 100-90, B: 89-80, C: 79-70, D: 69-60, F: 59 and below

Course Policies
Class Attendance Regulations
Students are expected to make the most of the educational opportunities available by regularly attending classes and laboratory periods. Therefore, the university reserves the right to deal with individual cases of non-attendance. Students are responsible for all assignments and examinations at the time they are due and may not use their absence from class as a plea for extensions of time to complete assignments or examinations.

Absence from class for cause:
• participation in recognized university activities
• personal illness properly certified
• emergencies caused by circumstances in which the student has no immediate control - the excuse must be approved by the dean or director of the unit in which the student is enrolled.
A student is permitted one unexcused absence per credit hour of the course they are attending. A student exceeding the number of absences may be dropped from the course and assigned the grade of “F”. Students may be readmitted to the course with the dean’s and the instructor’s permission.

Disabled Students: If you have a disability which is not apparent but which may affect your participation with the class, please see the instructor as soon as possible.

English Language Difficulties: Please advise the instructor if English is not your first or native language, specifically if reading or understanding verbal communication presents a problem.

Academic dishonesty will not be tolerated and will result in a grade of zero for that segment of the course.

Tentative Course Calendar
Weeks 1 – 3 basic anatomy and descriptions of human movement
Weeks 4 – 8 principles of physics and application to human movement
Weeks 9 – 12 analyzing sport skills and identifying/correcting errors
Weeks 13 - 15 mechanics of selected sport skills

F=Florida Educator Accomplished Practices Standards (FEAPS)
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)
(K)=Knowledge  (S)=Skill (D)=Disposition

Approved/Revised 10/30/07