



EFFECTIVE: JANUARY 2012 **CURRICULUM GUIDELINES**

A.	Division:	Academic	Effective Date:	January 2012
B.	Department / Program Area:	Faculty of Science and Technology, Sport Science	Revision	<input checked="" type="checkbox"/> New Course <input type="checkbox"/>
			If Revision, Section(s) Revised:	A, B, H, P, Q
			Date of Previous Revision:	
			Date of Current Revision:	September 2010
C:	SPSC 1151	D:	Biomechanics	E: 3
	Subject & Course No.			

M: Course Objectives / Learning Outcomes:

Upon completion of this course, students will be able to:

1. Describe the science principles that are applicable to the analysis of human movement.
2. Understand and use the concept of a free-body diagram as it applies to human movement.
3. Be able to derive and solve equations of human motion in 2 dimensions.

Demonstrate an understanding of the elements of the human musculo-skeletal system and how their properties interact during human movement

Be able to use the concepts of force-length, force-velocity, hysteresis, compression, tension, shear, strain, Young's Modulus, to explain musculo-skeletal adaptation

Apply knowledge of applied anatomy to describe human movement and motor skills in both anatomical and mechanical terms

Become familiar with the interaction of the mechanical properties of the musculo-skeletal system as they affect human movement