



## UNIVERSITI TEKNOLOGI MARA

### SED404: MUSCULOSKELETAL SYSTEM AND HUMAN MOVEMENT

<b>Course Name (English)</b>	MUSCULOSKELETAL SYSTEM AND HUMAN MOVEMENT <b>APPROVED</b>
<b>Course Code</b>	SED404
<b>MQF Credit</b>	3
<b>Course Description</b>	The course focused on the important concepts and basic principles to understand the structure and function of human body, and an understanding on the scientific aspects of motion based on mechanical principles in the study of basic human movement especially as related to sporting performance.
<b>Transferable Skills</b>	Knowing anatomy and physiology.
<b>Teaching Methodologies</b>	Lectures, Case Study, Tutorial
<b>CLO</b>	CLO1 Know the various aspects of human anatomy. CLO2 Understand the functions of human body parts. CLO3 Understand the status and the functions of human being.
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. The Human Body</b> 1.1) Definition of musculoskeletal system and its functions, anatomy and physiology, organizational level and body systems.	
<b>2. Basic Chemistry</b> 2.1) An introduction to matter and energy	
<b>3. Skin and Body Membrane</b> 3.1) Function of connective tissue, plasma membrane, plasma membrane transport system, the type of tissue and tissue repair processes.	
<b>4. The Muscular System</b> 4.1) Function composition and function of the framework, the types of bones and bone structure, bone formation, axial skeleton, skeleton appendicular and distribution system.	
<b>5. The Nervous System</b> 5.1) An introduction of nervous system and its underlying mechanism	
<b>6. The Blood System</b> 6.1) Identify the composition of blood and its function	
<b>7. The Cardiovascular System</b> 7.1) Heart function, muscle action, coordination of blood flow, efficiency and assessment.	
<b>8. The Digestive System</b> 8.1) Understanding of the intestine's role in human movement energy requirement	
<b>9. The Reproductive System</b> 9.1) Understanding of the reproductive framework and its cycle	
<b>10. The Respiratory System</b> 10.1) Understanding of the respiratory flow and its demand in human musculoskeletal movement.	

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Attendance	Online discussion	20%	CLO1 , CLO2
	Journal/Article Critique	Article review	20%	CLO2 , CLO3
	Quiz	3 quizzes	30%	CLO1 , CLO2 , CLO3
	Test	2 tests	30%	CLO2 , CLO3

Reading List	Recommended Text	<ul style="list-style-type: none"> <li>• Adrian, M.J. &amp; Cooper, J. M. 2000, <i>The biomechanics of Human Movement</i>, Press, Inc.</li> <li>• Seeley, R. R., Stephens, T.D., Tate, P. 2007, <i>Essentials of Anatomy &amp; Physiology</i>, 6th Edition Ed., McGraw Hill.</li> </ul>
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	