## Anatomy and Physiology of the Human Skeleton and Muscles

### Learning Outcomes

<table>
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<th>The student should be able to</th>
<th>Assessment Criteria</th>
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| **1** Understand the structure and functions of the human skeleton | 1.1 Describe the structure and functions of bones  
1.2 Explain the relationship between the structure and function of the human skeleton |
| **2** Understand the classification of joints and illustrate the range of movement at different joints | 2.1 Describe the classification of freely movable joints  
2.2 Examine and discuss the range of movement at different joints  
2.3 Analyse movements of joint actions during complex activities |
| **3** Understand the structure and function of the muscular system | 3.1 Describe the structure and functions of skeletal muscle  
3.2 Discuss muscle contraction in relation to movement  
3.3 Explore the relationship of antagonist pairs  
3.4 Analyse movements at specific joints |

### Assessment Methodology

Assignment part or wholly undertaken under controlled conditions or a 1000-1500 word report.

### Grading of this unit

The following grade descriptors will be applied to the assessment of this unit:

1. Understanding of the subject  
2. Application of Knowledge  
5. Communication and Presentation  
7. Quality

Please refer to the QAA Grade Descriptors for detail of the components of each descriptor.

### Indicative Content

- Relationship between structure and function: for example long bones – leverage for efficient movement.
- Range of movement at joints: e.g. extension, flexion, adduction, abduction, rotation and circumduction
- Movement of joints during complex activities: e.g. running.
- Analyse movements at specific joints: i.e. agonist and antagonist pairs and origin synergist and fixators.

Validation end date: 31 August 2019