University Logo


# Module Descriptor

# Definitive Document

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| **Module Code** | PHYC05 |
| **Version** | (completed by QASU) |
| **Module Title** | Anatomy and Biomechanics |
| **Credits** | 20 |
| **Valid From** | (completed by QASU) |
| **Status** | Select |
| **Subject Board** | (completed by QASU) |
| **HECoS Code** | 100252 – Physiotherapy |
| **Academic Level (FHEQ)** | 4 |
| **Study Period** | **B** |
| **Prerequisites and co-requisites** | None |
| **Not available to students taking/having taken** | N/A |

# This module aims to enable student to develop and apply knowledge of anatomy and biomechanics of the musculoskeletal system to the human movement and function.

# Content (Indicative)

* To develop and apply knowledge of normal anatomy to the human body.
* To develop knowledge of biomechanics of the musculoskeletal system (bone, cartilage, tendons, ligaments, skeletal muscle), terminology and concepts.
* To develop understanding of biomechanics of human movement and gait.
* To develop skills in conducting biomechanics assessment in physiotherapy practice.

# Teaching and Learning Experience

* Blended Learning
* Independent Learning
* Lectures
* Seminars
* Tutorials

# Module Learning Outcomes (MLOs)

On successful completion of this module students will be able to:

**1.** Demonstrate a board understanding in anatomy of the musculoskeletal system.

**2.** Demonstrate a board understanding in the biomechanics of the musculoskeletal system.

**3.** Identify the key components and demonstrate a board understanding biomechanics in gait analysis with an evidence-based approach.

**4.** Demonstrate an understanding of basic clinical and biomechanical assessments to quantify and analyse human movement.

## Assessment

| **Assessment task** | **Load** | **Weighting** | **Learning Outcomes assessed** |
| --- | --- | --- | --- |
| Written Examination | up to 2500 words | 50% | 1, 2 |
| Case study | up to 2500 words  (or equivalent) | 50% | 3, 4 |

\*All assessment tasks must be passed in order to pass the module.

# Indicative reading (APA 7th edition referenced)

### Books

Agur, A.M.R., Dalley, A.F. (2019) Essential clinical anatomy. 6th edition, Philadelphia : Wolters Kluwer Health

Palastanga,N. and Soames, R. (2019) Anatomy and Human Movement, Structure and Function. 7th ed. Edinburgh, Churchill Livingstone.

Chaffin, D.B., Andersson, G.B. and Martin, B.J. (1999). *Occupational Biomechanics 1st edition,*

New York : Wiley-Interscience Publication.

Hertling, D. and Kessler, R.M. (2006). *Management of common musculoskeletal disorders :*

*physical therapy principles and methods* 4th edition, Philadelphia, Pa.: Lippincott Williams

& Wilkins.

Nordin, M. and Frankel, V.H. (2012). *Basic biomechanics of the musculoskeletal system*, 4th edition, Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health.

Winter, D.A. (2009). *Biomechanics and motor control of human movement,* 4th edition, Hoboken, N.J.: Wiley.

**Websites**

<http://www.clinicalgaitanalysis.com/>

**Journals**

[Physiotherapy](https://www.physiotherapyjournal.com/)

[Journal of Physiotherapy](https://www.sciencedirect.com/journal/australian-journal-of-physiotherapy)

[Physical Therapy & Rehabilitation Journal](https://academic.oup.com/ptj)