

## Clinical Movement Analysis

### Module Information

2022.01, Approved

### Summary Information

Module Code	7116SPOSCI
Formal Module Title	Clinical Movement Analysis
Owning School	Sport and Exercise Sciences
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

### Teaching Responsibility

LJMU Schools involved in Delivery
Sport and Exercise Sciences

### Learning Methods

Learning Method Type	Hours
Lecture	12
Practical	12

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

### Aims and Outcomes

Aims	This module aims to provide the conceptual and practical knowledge base that develops and extends your understanding of clinical movement analysis. The students will learn how to interpret gait analysis results in a clinical context through exposure to the current literature, specialised methods, and clinical case studies. They will also be exposed to the latest research developments in the unique area of virtual rehabilitation.
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**After completing the module the student should be able to:**

**Learning Outcomes**

Code	Number	Description
MLO1	1	Analyse and integrate the advanced concepts related to the theory and practice of clinical movement analysis
MLO2	2	Produce and be able to interpret the results of a gait analysis report
MLO3	3	Critically appraise the current literature in the methodological and applied aspects of clinical movement analysis

**Module Content**

Outline Syllabus	The module content includes: Introduction to clinical movement analysis Problem based learning - advanced use of gait analysis software Theory of normal gait Physical examination The role of gait analysis in cerebral palsy Site visit to Alder Hey Hospital's Gait Laboratory Abnormal gait Introduction to virtual rehabilitation Movement re-training applications of virtual rehabilitation Effects of visual influences on gait
Module Overview	
Additional Information	This module provides an opportunity to focus onto the clinical use of gait analysis. Aspects of the advanced methodology and the clinical decision making process will be visited. Our world-class Biomechanics laboratories house cutting edge equipment waiting for you to use them. Optoelectronic cameras enable 3D movement capture, force and pressure platforms give information about global and local loads, virtual reality (CAREN system) provides interaction in real time. See our Biomechanics section on the RISES website for staff research which feeds into your studies. A long track record of academic staff in gait analysis and virtual rehabilitation ensures that students gain insight into both the theoretical and practical aspects of these important applications of biomechanics. The existing links and ongoing collaboration with the North West Movement Analysis Centre at Alder Hey Children's NHS Foundation Trust provide access to clinical case presentations and invited speakers.

**Assessments**

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Normal gait report	50	0	MLO1, MLO3
Report	Pathological gait report	38	0	MLO2, MLO3
Artefacts	Oral defence of report	12	0	MLO2, MLO3

**Module Contacts**

**Module Leader**

Contact Name	Applies to all offerings	Offerings
Gabor Barton	Yes	N/A

**Partner Module Team**

Contact Name	Applies to all offerings	Offerings
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