Clinical Gait Analysis
(RHAB810)

Pathways, programmes/specialisations the paper is attached to
Postgraduate Certificate in Health Science, Master of Health Science, Postgraduate Diploma in Health Science, Master of Health Practice in the Rehabilitation and Musculoskeletal Physiotherapy specialisation areas.

Am I eligible to enrol in this paper?
The paper is for rehabilitation and sports professionals who will normally have completed the requirements of one of the following in a relevant field from a New Zealand tertiary institution or equivalent:
• A bachelor’s degree
• Professional qualification recognised by the university as being equivalent to a bachelor’s degree
• Evidence of professional experience deemed by the university to be equivalent to a bachelor’s degree
Where entry qualifications do not meet the criteria for study at postgraduate level, completion of transitional studies may be required before the applicant is admitted to the programme.

What is this paper about?
Explores and critiques normal and pathological gait. Explores key issues pertaining to the analysis of a number of clinical cases. Extends knowledge and critical understanding of skills specific to gait analysis within the clinical setting; enhances the skills in acquiring and analysing data relating to gait analysis equipment.

What can I expect to learn?
The core component of the module is clinical gait analysis. An introduction to terminology used in movement analysis that includes evolution of walking and gait cycle terminology. Pathological gait patterns will be introduced evaluating the older adult, neuromuscular gait and musculoskeletal gait patterns. Introduction to mechanisms that influence gait such as footwear, orthotics and walking aids. Methods of gait analysis will include instrumentation to measure: kinetic, kinematic and muscle activity (EMG) relating to the lower limb joint segments. Seminar sessions will promote critical analyses of key publications related to lower limb gait analysis.

Evolution of bipedal gait
Introduction to normal gait: Gait in the older adult
Introduction to pathological gait: Gait in arthritis, Gait in neuromuscular conditions, Running gait
External mechanisms influencing gait: Footwear, Foot Orthoses
Methods of gait analysis: Gait assessment, Motion measuring systems, Pressure analysis, Force measuring systems

How is this paper taught?
Location: On campus at AUT North, AUT University
Teaching Period(s): Semester 2
Block Course: Yes
Teaching Style: Lectures, practical sessions and group discussions.

How will I be assessed?
1. Written assignment 5000 words

Who will be teaching me?
Paper Coordinator: Matthew Carroll, PhD AUT, MPod Curtin, PG Dip (Sports Medicine) Otago, BHSc (Podiatry) CIT, Dip (Exercise Physiology)
Matthew has 20 years’ experience in Musculoskeletal Podiatry. His main interests are in the area of gait analysis in people with inflammatory arthritic conditions. Matthew is Head of Podiatry and Senior Lecturer in the Department of Podiatry, Director of the Australia New Zealand Podiatric Accreditation Council and member of the NZ Podiatrists Registration Board. Matthew is an Expert Reviewer for the Foot & Ankle Research Review and is on the Editorial Board of the Journal of Foot & Ankle Research.
Fees
Information about paper tuition fee for papers may be found at:
http://www.aut.ac.nz/study-at-aut/fees-scholarships-and-finance/fees/postgraduate-fees

Enrolment and enquires
Please contact Debra Spinetto for any enquiries about enrolment. Further information about our postgraduate offerings may be found online.