LEARNING DEVELOPMENT PROJECT OVERVIEW FORM

Project title	Physiotherapy: development of WebCT tutorial on the biomechanical analysis of gait			Project ID No	**CLAD – HIST034**
Strategy area/theme	Health sciences				
Start date	October 2002	Completion date	August 2003		
Project type	Learner enhancement project				
Level	Undergraduate	Programme of study	BSc (Hons) Physiotherapy		
Aims	To provide an interactive tutorial using WebCT for students to fully integrate biomechanical analysis of gait with clinical practice, and provide greater understanding of how injury or disease processes will affect this analysis. The project will enable students to access selected detailed analysis through WebCT, eliminating the need to attend practical campus-based demonstrations. The intention is to provide a tutorial that has flexibility depending on student responses, with links to allow correction or progression to different areas.				
Objectives	1. To produce an interactive tutorial running on WebCT that will: 2. Relate video images to biomechanical analysis of gait 3. Identify the phases of gait in a biomechanical analysis 4. Identify differences in performance of gait in normal subjects 5. Compare biomechanical parameters of gait (joint movements, forces and torques) in normal and impaired performances 6.				
Overview	Movement analysis is becoming more important in providing detailed information to support clinical practice, and students will benefit from a greater understanding of the processes involved. Previous work on an LDU project in the School of Health Sciences has provided a knowledge base that will facilitate the development of this new project. Skills gained in presenting interactive tutorials will be utilised, and in addition new skills to integrate different software outputs will be developed. The intention of this project is to provide an interactive tutorial on biomechanical analysis of gait (walking). Vicon optical motion capture (6 camera system) and force platform equipment will be used to collect and process the data required to produce this tutorial. The tutorial will include problems for the students to resolve in terms of identifying alterations in gait in selected examples, and a follow up tutorials will allow discussion between students of the expected outcomes and use of gait analysis. Patients will be recruited at the Clinical Measurement Laboratory Oak Tree Lane Centre, and will be asked for their permission to use their data for educational purposes. (Permission to approach patients will be gained from consultants.) Students would normally only have the opportunity of a short demonstration of this type of equipment. By providing this tutorial students will be able to explore a range of normal and abnormal presentations of gait analysis. By working with this detailed analysis they can extend their understanding of the effects of injury and disease on movement patterns, and also relate this to the use of this type of assessment in clinical practice.				

Further Information	For further information on this project please contact CLAD at University of Birmingham
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