

Short Course in Clinical Biomechanics

16-17 March 2003

Postgraduate Medical Institute, Singapore General Hospital

Organised by:



Singapore General Hospital

Aim of Course

Biomechanics has been a basic science subject for orthopaedic surgeons from early in the 20th century. It is even more important now as technology becomes ever more a part of orthopaedic surgical procedures. Surgeons look more towards improving the results of musculoskeletal repair and reconstructions for their patients who themselves are living longer but wrought with the aging diseases of the skeleton. This course is the culmination of the Orthopaedic Biomechanics Course (OBC) conducted over the past 2 years for not only orthopaedic trainees and engineers, but for therapists and other interested specialists. The OBC recently concluded its 7th module and this overview Short Course was made possible by the kind offer of Professor Edmund Chao to come over from USA.

Course Outline

This Short Course is an overview to link the fields of engineering and medicine, in particular, orthopaedics and musculoskeletal research. It covers not only mechanics, fracture healing, prosthetic replacement and design, but also gait research and virtual CAD/CAE techniques. Prof Chao has an innate ability to make biomechanics fun to learn.

Target Audience

This Course is targetted at orthopaedic trainees and surgeons, engineering students, bioengineers, engineers involved in the life sciences, orthopaedic and operating theatre nurses, physiotherapists and doctors interested in musculoskeletal life sciences.

Course Details

Date:	16 Mar 2003 (Sun) & 17 Mar 2003 (Mon)
Time:	16 Mar - 0900 to 1700 hrs 17 Mar - 1345 to 1930 hrs
Venue:	SGH-Postgraduate Medical Institute, Lecture Rooms 3 & 4 Blk 6, Level 1, SGH
Speaker:	Professor Edmund Yee Su Chao Orthopaedic Biomechanics Lab Johns Hopkins University Baltimore, Maryland
Registration:	\$25.00 (includes tea breaks & lunch)
Registration Deadline:	7 Mar 2003
Enquiries:	Ms Angie Enge (Tel: 6326 6682, E-mail: gteekc@sgh.com.sg)
CME Points:	4

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Programme

16 Mar 2003 (Sunday)

Venue: SGH Postgraduate Medical Institute, Blk 6, Level 1, SGH

0900	Registration & Introduction	J Goh / K S Khong
0915	Basic Biomechanics of Musculoskeletal Systems: Statics, Kinematics & Kinetics	E Chao
1015	Tea Break	
1030	Basic Biomechanics of Musculoskeletal Systems: Stress, Strain & Structural Stiffness	E Chao
1145	Basic Methodology of Biomechanical Testing in the Laboratory	S M Chou
1215	Lunch	
1315	Composition, Form, Properties & Function of Bone	E Chao
1415	Bone Fracture Healing & Repair	E Chao
1515	New Concepts in Fracture Fixation	K S Khong
1615	Biophysical Stimulation - A Form of Complementary & Alternative Medicine (CAM)	E Chao
1715	Closing Remarks	
1730	End of Day 1	

17 March 2003 (Monday)

Venue: National Dental Centre Auditorium, Level 8
(5 Second Hospital Avenue, Singapore 168938 Tel: 6324 8910)

1400	Characterization of Orthopaedic Implant Material & Structural Properties	E Chao
1500	Implant and Prosthesis Design Principles	F F Konstantin
1600	Tea Break	
1615	A Tissue Engineering Approach to Limb Salvage Surgery	E Chao
1715	Conventional Gait Analysis and its Clinical Applications	J Goh
1815	Virtual Interactive Musculoskeletal System (VIMS) as a Simulation Tool: A CAD/CAE Approach in Biomechanical Analysis of Musculoskeletal System	E Chao
1915	Closing Remarks	
1930	End	

Enquiries, please contact:

Angie Enge (Tel: 6326 6682; Main: 6326 5284; Email: gteekc@sgh.com.sg)