#### **MODULE 4**

#### **Course Outline (Modules & Tentative Schedule)**

#### **Teaching Faculty**

James Goh Dept of Orthopaedic Surgery National University of Singapore

Patrick Goh Sports Medicine & Fitness Division Singapore Sports Council

Peter Lee Biomaterials Programme Institute of Materials Research and Engineering

Looi Kok Poh Dept of Hand and Reconstructive MicroSurgery National University Hospital

Barry Pereira Dept of Orthopaedic Surgery National University of Singapore

Alastair Ritchie School of Mechanical and Production Engineering Nanyang Technological University

Ashvin Thambyah Dept of Orthopaedic Surgery National University of Singapore

P Thiagarajan Mt Elizabeth Medical Centre

Tho Kam San Dept of Orthopaedic Surgery Alexandra Hospital

#### Chairman

A/Prof James Goh

Tel: 772 4424 Fax: 774 4082 E-mail: dosgohj@nus.edu.sg

Module 1 (Completed) Analysis of Muscle and Joint Loads

(17 & 18 September 1999)

Module 2 (Completed) Musculoskeletal Dynamics, Locomotion and Clinical Applications (25 & 26 February 2000)

(20 & 20 1051441) 2000)

Module 3 (Completed) Bone Mechanics: Assessing Failure Risk and Understanding Fracture Fixation (30 June-1 July 2000)

Module 4
Biomechanics of
Musculoskeletal Soft Tissue:
Tendon, Ligaments,
Meniscus and Cartilage
(17 & 18 November 2000)

Module 5
Biomechanics of Diarthrodial
Joints and Joint Replacements I:
Upper Limb
(Feb 2001)

Module 6 Biomechanics of Diarthrodial Joints and Joint Replacements II: Lower Limb (May 2001)

Module 7 Biomechanics of the Spine and Spinal Implants and Instrumentations (Aug 2001)

Module 8 Prosthetics and Orthotics — Principles and Applications (Nov 2001)

#### For enquiries, please contact:



SGH Postgraduate Medical Institute Singapore General Hospital Blk 6 Level 1, Outram Road Singapore 169608

Tel: 326 6682 Fax: 223 9789 Email: gteekc@sgh.com.sg Attn: Ms Angie Enge

# Orthopaedic Biomechanics Course

In conjunction with the Orthopaedic Advanced Surgical Training Syllabus

## **Module 4**

Biomechanics of Musculoskeletal Soft Tissues: Tendon, Ligaments, Meniscus and Cartilage

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Date: 17 & 18 Nov 2000 (Friday & Saturday)

Time: Day 1 – 1230 to 1710 h Day 2 – 0830 to 1400 h

Venue: Seminar Room #03-01A. Level 3.

Orthopaedic Biomechanics Laboratory,

**#B1-04**, Level B1

CRC Building, Faculty of Medicine National University of Singapore

#### Organised By

Departments of Orthopaedic Surgery of National University of Singapore & Singapore General Hospital

School of Mechanical & Production Engineering Nanyang Technological University

#### Organising Secretariat

SGH Postgraduate Medical Institute

#### Supported by

Specialist Training Committee (Orthopaedics)

Singapore Orthopaedic Association

Biomedical Engineering Society

Module 4: Biomechanics of Musculoskeletal Soft Tissues: Tendon, Ligaments, Meniscus and Cartilage							
Friday, 17 November 2000 (Day 1: 1230 – 1710 hours)							
1230	REGISTRATION		1530	TEA BREAK			
1300	PRE-COURSE ASSESSMENT		1550	BIOMECHANICAL ASPECTS OF ACL			
1330	MECHANICAL PROPERTIES OF MATERIALS	B Pereira		RECONSTRUCTION	P Thiagarajan		
1350	QUESTIONS AND ANSWERS		1610	ROLE OF BIOMECHANICS IN TENDON			
1400	VISCOELASTIC MATERIAL PROPERTIES	B Pereira		REPAIR IN THE UPPER LIMB	KP Looi		
1420	QUESTIONS AND ANSWERS		1630	BIOMECHANICAL CONSIDERATION IN			
1430	FORM AND FUNCTION OF TENDONS AND LIGAMENT	J Goh		REHABILITATION FOLLOWING SOFT TISSUE INJURIES	P Goh		
1450	BIOMECHANICS OF TENDON AND		1650	DISCUSSION			
		Γhambyah	1710	END OF DAY 1			
1510	WORK EXAMPLES						
Saturday, 18 November 2000 (Day 2: 0830 – 1400 hours)							
			1070		70		
0830	FORM AND FUNCTION OF ARTICULAR CARTILAGE PT	hiagarajan	1050	THEORETICAL TOOLS AND TECHNIQUI IN BIOMECHANICAL EVALUATION OF	±S		
		<i>3</i>		SOFT TISSUES	P Lee		
0850	BIOMECHANICAL PERSPECTIVES OF REPAIR AND REGENERATION		1110	VIDEO DEMONSTRATION OF			
		hiagarajan	1110	BIOMECHANICAL TESTING OF SOFT			
0910	BIOMECHANICS OF ARTICULAR			TISSUES	A Thambyah		
0010	CARTILAGE	B Pereira	1130	LUNCH			
0930	WORK EXAMPLES		1230	PRACTICAL WORKSHOP ON SOFT			
				TISSUE TESTINGS A Thambyah, B Perei	ira, P Lee, J Goh		
0950	TEA BREAK			Venue: Orthopaedic Biomechan	ics Laboratory		
1010	BIOMECHANICAL FUNCTION OF			•	ics Laboratory		
	MENISCUS	A Ritchie	1400	END OF PROGRAMME			
1030	BIOMECHANICAL CONSIDERATION IN MENISCAL REPAIR AND REHABILITATION	KSTho					

### **REGISTRATION**

# Orthopaedic Biomechanics Course

#### Module 4

Biomechanics of Musculoskeletal Soft Tissues: Tendon, Ligaments, Meniscus and Cartilage

Name:						
Designat	ion:					
Dept/Organisation:						
Address:						
Гel no:	Fax no:					
Pager no	:					
E-mail:						
Please inc	dicate interest 🔀					
	I would like to register for Module 4. The registration fee is S\$309/- (includes GST)					
	I would like to purchase the reference text entitled: "Basic Orthopaedic Biomechanics" @ \$\$210.00 per copy (not included in the registration fee). (The cost of the book includes courier delivery charges. Due to the specialised nature of the book, there may be a possible waiting period of up to 6 weeks to process the orders.)					

Please enclose cheque made payable to Nanyang Technological University and mail together with this registration form to:

SGH Postgraduate Medical Institute Singapore General Hospital Blk 6 Level 1, Outram Road Singapore 169608