The Leeds Orthopaedic Biomechanics course

Monday 20 – Tuesday 21 January 2020

Accredited by the Royal College of Surgeons of England for up to 10.5 CPD points
The Leeds Orthopaedic Biomechanics course

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Course directors
Professor Richard Hall and
Professor Sophie Williams
School of Mechanical Engineering

Course aims
The programme aims to give delegates an understanding of the fundamentals of biomechanics in relation to orthopaedics and particularly joint replacement. This specialist course will provide background to both the engineering and clinical aspects of orthopaedic biomechanics, that can then be used in different contexts. The course is also part of the postgraduate programme provision in the Institute of Medical and Biological Engineering.

Who should attend?
The course will be of interest to personnel from academic, health-care and industrial sectors; including researchers and PhD students in the field; orthopaedic surgeons, trainees and practitioners, and in the orthopaedic industry those involved in development, testing, regulation, sales and marketing.

Accreditation
The 2020 Leeds course in Orthopaedic Biomechanics has been formally accredited by the Royal College of Surgeons of England for up to 10.5 CPD points.

www.imbe.leeds.ac.uk

What our previous delegates say:
"One of the best courses I have ever attended. Orthopaedic biomechanics was thoroughly covered."

"Such a great experience and opportunity for patients, academics, engineers and surgeons to engage and participate in discussion."

"Great course with a varied selection of excellent guest speakers"

Monday 20 January 2020

08:45 Registration and coffee

09:15 Welcome
Prof R M Hall and Prof S Williams, Institute of Medical and Biological Engineering, University of Leeds

09:30 Orthopaedic perspectives (patient, industry and surgeon)
Patient – Mr T Fellowes
Industry
Dr J Anderson, Principal Bioengineer – Hips, DePuy Synthes Joint Reconstruction
Surgeon
Mr V Borse, Consultant Orthopaedic Spinal Surgeon, Leeds General Infirmary

10:45 Coffee

11:00 Fracture mechanics
Mr K Sherman, Orthopaedic surgery consultant, Spire Hull and East Riding Hospital

11:45 Gait analysis
Dr D Lunn, Leeds Musculoskeletal Biomedical Research Unit, Leeds Teaching Hospitals NHS Trust and University of Leeds

12:15 Biomechanics of the hip – an engineer’s perspective
Dr T Stewart, Institute of Medical and Biological Engineering, University of Leeds

12:45 Lunch and lab tour (1 hour)

13:45 The normal synovial joint and introduction to Osteoarthritis (OA)
Prof P Conaghan, Director, Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds

14:30 Overview of ankle and total replacement
Dr C Brockett, Institute of Medical and Biological Engineering, University of Leeds

15:15 Basic spinal biomechanics
Prof R M Hall, Institute of Medical and Biological Engineering, University of Leeds

15:30 Tea

15:45 Mechanics of spinal trauma / clinical biomechanics of fusion surgery
Prof R M Hall, Institute of Medical and Biological Engineering, University of Leeds

16:15 Shoulder and elbow biomechanics
Mr D Limb, Consultant Orthopaedic Trauma, Leeds Teaching Hospitals NHS Trust

17:15 End of day one

Tuesday 21 January 2020

09:00 Bearing surface and failure mechanics in total hip replacement (THR)
Prof S Williams, Institute of Medical and Biological Engineering, University of Leeds

09:45 Understanding failure of cemented hip replacements
Mr M Stone, Consultant Orthopaedic Surgeon, Leeds Teaching Hospitals NHS Trust, Honorary Clinical Associate Professor University of Leeds

10:30 Coffee

11:00 Philosophy of uncemented stems
Professor T Board, Consultant Orthopaedic Surgeon, Wrightington Hospital

11:45 Knee replacement – a clinical perspective
Mr N London, Consultant Knee Surgeon, Yorkshire Knee Clinic

12:45 Lunch

13:30 Clinical biomechanics of the knee
Speaker to be confirmed

14:00 Design variants of total knee replacement
Dr I Leslie, Team Leader Knee R&D, DePuy Synthes Joint Reconstruction

14:30 Tea

14:50 Compression fracture and vertebroplasty
Mr J Timothy, Consultant Neurosurgeon and Spinal Surgeon, Leeds

15:50 Closing remarks

16:00 End of day two and course
Further information

**Venue**
The course will be held at the Faculty of Engineering and Physical Sciences, University of Leeds, Leeds, LS2 9JT. The University campus is a 20 minute walk from Leeds city train station.

Please note, car parking for visitors is unavailable at the University. The nearest public car park is Woodhouse Lane (multi storey) at LS1 3HQ.

**Course fees**
The following course fees include the cost of tuition, course materials, lunches and light refreshments: £495

**Accommodation**
Delegates are responsible for booking their own accommodation, if required. A list of hotels close to the University will be included within the delegate joining instructions.

**Accessibility**
Please let us know if you have any specific requirements including any access or dietary requirements in relation to this course.

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**How to book**
Booking for this course should be completed through our secure Online Store. To complete your booking please follow the instructions below:

1. Log on to our online store at: [https://store.leeds.ac.uk](https://store.leeds.ac.uk)
2. Select Conferences and Events in the left-hand navigation bar.
3. Select CPD Faculty of Engineering and Physical Sciences
4. Select the course or event for which you wish to register and click on ‘Book’.
5. If you are a new user, please follow the instructions to register. If you already have an account log in as instructed.
6. Complete the application process as directed by the booking system.

You will receive an automatic confirmation email within 24 hours of your booking.

Our privacy notice tells you what to expect us to do with your personal information when you make contact with us or use one of our services: [https://eps.leeds.ac.uk/privacy](https://eps.leeds.ac.uk/privacy)

For online booking queries and for all other enquiries please contact:

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**Terms and conditions for booking**
Payment in full should accompany your booking. The course fee is exempt from VAT. Fees must be paid in full no later than 15 working days before the course commences. Failure to pay may result in attendance being refused.

Registrations are accepted on the understanding that the printed programme is given in good faith but may have to be re-scheduled or the speakers changed for reasons outside our control. The University of Leeds reserves the right to cancel or postpone the course, in which case fees will be refunded in full. In the event of cancellation, the University will not be held liable for delegates travel or accommodation expenses.

Delegates will receive a full refund for cancellations made within 7 days of online booking, except where the booking has been made for an event commencing within the next 7 days. Where a delegate wishes to cancel a registration after this 7 day period, written cancellations received up to 28 working days before the course will be subject to an administrative charge of 25% of the total remittance; between 28 and 15 days before the course 80% of the total remittance will be charged; within 14 days of the commencement of the course the total remittance is chargeable and no refunds will be made, this also applies for non-attendance but copies of the course documents will be sent. Substitutions may be made at any time.

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