



ultrasound-  
guided  
**msk**  
interventions

postgraduate certificate



University of Essex



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## Course aim

As an experienced practitioner in the field of musculoskeletal practice, this course will enable you to extend your scope of practice to include the use of injection therapy.

The postgraduate certificate has been designed by the Australasian Sonographers Association (ASA) and the University of Essex (UK) to reflect Australian practice.

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## Course structure

The postgraduate certificate is made up of three modules:

1. Ultrasound-guided injections of the shoulder (30 credits)
2. Ultrasound-guided musculoskeletal injections (15 credits)
3. Understanding and managing complex musculoskeletal conditions (15 credits)

Students will explore theoretical elements with a blend of face-to-face teaching supported by a Virtual Learning Environment. A significant proportion of the learning hours will be dedicated to learning and perfecting scanning and injection protocols in the workplace.

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## Course dates and duration

The course commences 15 February 2016.

Assessments and course work are due in September 2016, November 2016 and mid-March 2017.

The face-to-face session will be held from 17–20 March 2016. Venue location is the Jasper Hotel, 489 Elizabeth Street Melbourne.

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## Student workload

The 4-day face-to-face session is compulsory. Students should allow time to complete the independent study requirements. These will vary throughout the course and should be equivalent to approximately 2 to 3 hours per week (including workplace injection tasks).

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## Admission requirements

Entry requirements:

- A minimum 2 years' musculoskeletal postgraduate experience. Preference will be given to applicants with significant demonstrable musculoskeletal experience.
- Current ASAR accreditation or accreditation with your associated registering/accrediting body.
- Access to support in the workplace to enable completion of assessment, including a mentor, legally prescribed medication and suitable ultrasound equipment.



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## How to apply

Application forms for the course are available on the ASA website. Completed forms should be scanned and emailed to [learning@a-s-a.com.au](mailto:learning@a-s-a.com.au) or posted to:

The Australasian Sonographers Association  
PO Box 356  
Dingley Village  
Victoria 3172  
Australia

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## Course fees

The course fees are AU\$8,250 (inclusive of GST). A non-refundable deposit of \$825 is required upon acceptance into the course. The remainder of fees are due by 29 January 2016.

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## Assessment

Assessment comprises a combination of case studies and log-book submissions.

Case studies will discuss the theoretical and professional issues that underpin the application of ultrasound-guided musculoskeletal injections.

The log books will present the required number of ultrasound guided injections in the workplace.

A standard reporting form will be used to document the details of the intervention, patient's signs and symptoms, anatomical area, ultrasound scanning features indicative of pathology, injection medication dose and needle placement. A brief reflection on the procedure including challenges and unexpected considerations will be expected. Each intervention must be accompanied by annotated images of the area scanned and an additional image demonstrating needle placement. Each injection needs to be verified by the workplace mentor.



## Module descriptions

### Module 1: Ultrasound-guided injections of the shoulder

This module aims to develop students' knowledge, practical use and clinical application of ultrasound-guided musculoskeletal injections for the shoulder. The clinical role of ultrasound-guided musculoskeletal injections for the shoulder relates to the evidence base supporting its role in the management of many shoulder presentations and the increasing requirement for clinicians to guarantee the site of injection, thereby providing evidence of needle placement. Clinicians need to have a strong understanding of the theoretical issues underpinning injection therapy including legalities and professional responsibilities. There is a strong emphasis on clinical reasoning in this module, ensuring clinicians are able to justify the guided injection intervention's inclusion in a patient's management pathway.

#### Learning outcomes:

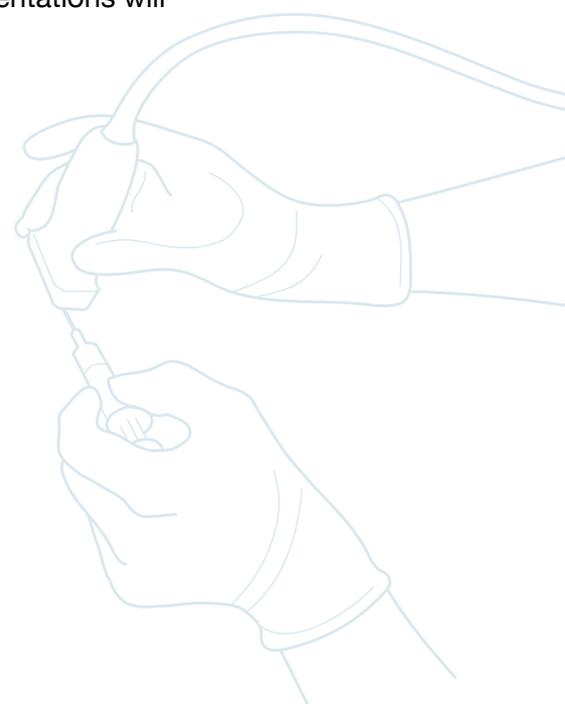
1. To integrate musculoskeletal ultrasound skills with injection therapy in the shoulder region at the workplace.
2. Understand the theoretical and scientific principles that underpin the integration of these modalities.
3. Evaluate the current evidence base regarding the efficacy of ultrasound-guided injection therapy for the shoulder.
4. Evaluate the role of ultrasound guided injections within their professional environment.

### Module 2: Ultrasound-guided musculoskeletal injections

This module aims to develop students' knowledge, practical use and clinical application of ultrasound-guided musculoskeletal injections beyond the shoulder region. Key peripheral joints and soft tissues will be explored to enable the clinician to add this modality to their professional skill set. Common musculoskeletal presentations will be identified and the appropriate clinical injection procedures evaluated. Clinicians will become familiar with injection procedures, the scientific principles that underpin them, and the factors that determine quality assurance.

#### Learning outcomes:

1. To integrate musculoskeletal ultrasound skills with injection therapy beyond the shoulder region at the workplace.
2. Understand the theoretical and scientific principles that underpin the integration of these modalities.
3. Evaluate the current evidence base regarding the efficacy of ultrasound-guided injection therapy beyond the shoulder region.
4. Evaluate the role of ultrasound-guided injections within their professional environment.



## Module 3: Understanding and managing complex musculoskeletal conditions

This module aims to explore the value and relationship between each component of a patient assessment and how appropriate timing and choices are made regarding assessment tools and treatment pathways. The module is designed to enhance clinical competency and facilitate clinicians' professional development. The content is delivered via e-learning and the students will be guided through forum activities and directed tasks over the course of 6 weeks. Students will not need advanced IT skills. Accessing material and contributing to forums is via a simple web-based platform.

### Learning outcomes:

1. Demonstrate advanced knowledge of musculoskeletal pathologies.
2. Demonstrate advanced knowledge of musculoskeletal assessment and diagnostic skills in the management of complex musculoskeletal conditions.
3. Demonstrate advanced clinical reasoning skills to evaluate choice of assessment/diagnostic investigations and treatment choices.
4. Demonstrate advanced knowledge and application of the biopsychosocial approach to assessing and managing patients with complex musculoskeletal conditions.
5. Understand the requirement for application of evidence-based practice, reflective practice and continuing professional development.
6. Demonstrate advanced understanding of the role of the multidisciplinary team in managing this group of patients.
7. Demonstrate understanding of professional limitations and appropriate referral pathways.

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## Course tutors

### Sue Innes

*MCSP, HCPC, MMACP, MSc Physiology, PGCE*

Sue Innes is a senior lecturer at the University of Essex where she leads the Postgraduate Musculoskeletal Pathway. She has developed and delivers musculoskeletal ultrasound education at the University, which has been accredited by The Consortium for the Accreditation of Sonographic Education and The Royal College of Radiologists. The innovative teaching strategies employed have been accredited with an Excellence in Teaching Award in 2015. These strategies include addressing diverse professions' requirements and enabling students to assist their education with a robust virtual learning environment. Sue is in her completion year of a professional doctorate exploring professional issues related to musculoskeletal ultrasound imaging.



## Mark Maybury

*MCSP, HCPC, MSc Neuro Musculoskeletal Health Care, BSc (Hons) Sports Science, BSc (Hons) Physiotherapy, PgD Biomechanics, PgD Medical Ultrasound (MSK)*

Mark Maybury is an extended scope musculoskeletal physiotherapist who works at Good Hope Hospital, Heart of England Foundation Trust, in Birmingham (UK). He specialises in diagnostic and interventional ultrasound, and works in the trauma and orthopaedics, physiotherapy and radiology departments. He is a faculty member on many of the leading musculoskeletal ultrasound courses in the UK, and a visiting speaker at several universities. In addition to being a published author and member of the education committee of the British Institute of Radiology, he holds an honorary lecturer position at the University of Essex.

## Alison Hall

*Consultant MSK Sonographer DCR (R), MSc Medical Ultrasound*

Alison Hall is a diagnostic radiographer by background and trained in diagnostic ultrasound specialising in musculoskeletal ultrasound in 2002. Following a clinical and managerial career in radiology, in 2008 Alison joined Keele University (UK) as a consultant sonographer/research fellow. Alison's role is to develop musculoskeletal ultrasound services and to provide a link between clinical practice and research. The post is a collaborative one between the Haywood Hospital and Cannock Chase Hospital, with clinical research at the Arthritis Research UK Primary Care Centre, Primary Care Sciences, Keele University. She trains clinicians and researchers to use diagnostic ultrasound and ultrasound-guided injections, and speaks regularly at national and international conferences.

Alison chairs the Musculoskeletal Sonographer Special Interest Group in the UK, is a member of the Professional Standards Group at BMUS, the ultrasound special interest group for the British Society of Rheumatology, the Society of Radiographers and the British Medical Ultrasound Society.

## Gordon Lumsden

*MCSP, HCPC, MMACP, MSc Medical Ultrasound Imaging (MSK), MSc Manipulative Physiotherapy, BSc Physiotherapy, BA (Hons) Human Movement, PGCE*

Gordon Lumsden is an extended scope practitioner in upper limb and spinal conditions at Shrewsbury and Telford Hospital (UK) and has successfully integrated dynamic ultrasound as part of the assessment and rehabilitation of musculoskeletal patients since 2004. He performs and reports on his own scans and has established one-stop MSK clinics utilising ultrasound as part of the process. As one of the founding members of the Dynamic Ultrasound Group (now EPADU) he regularly contributes to courses on musculoskeletal ultrasound and guided injections and is a visiting lecturer at several UK universities. His interests lie in exploring the benefits patients gain from having an ultrasound scan as part of an overall assessment and factors that influence the results of guided injections.



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## Required resources

### Essential

An in-depth anatomy book of your choice, for example:

Ibrahim VM, Moore RE. *A Practical Handbook to Ultrasound Guided Injections*. CreateSpace; 1 May 2012.

### Recommended

Bianchi S, Martinoli C. *Ultrasound of the Musculoskeletal System*. Springer, Berlin; 2007.

Bradley M, O'Donnell P. *Atlas of Musculoskeletal Ultrasound Anatomy*. 2nd edn. University Press. Cambridge; 2010.

Jacobson J. *Fundamentals of Musculoskeletal Ultrasound*. 2nd edn. Saunders, Philadelphia; 2012.

Malanga G, Mautner K. *Atlas of Ultrasound-Guided Musculoskeletal Injections (Atlas Series)*. McGraw Hill Education, China; 2014.

Moore R. *Musculoskeletal Ultrasound of the Extremities*. CreateSpace; 2010.

O'Neill JMD, editor. *Musculoskeletal Ultrasound: Anatomy and Technique*. Springer, New York; 2008.

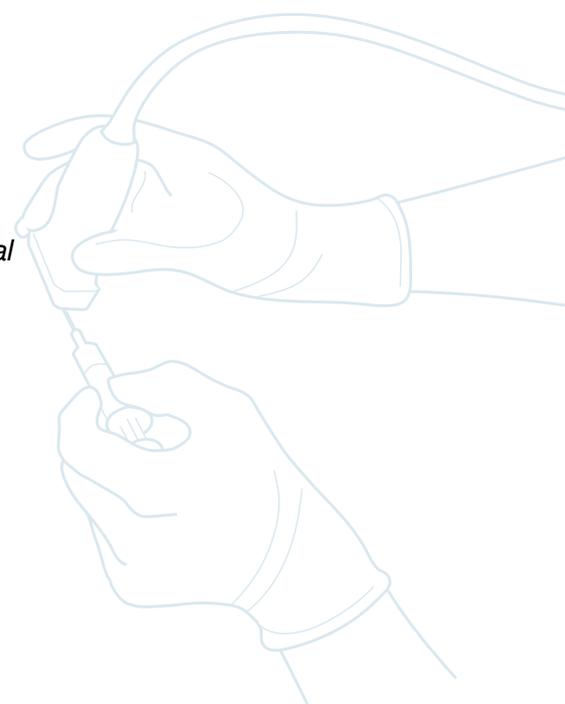
Saunders S, Longworth S. *Injection Techniques in Musculoskeletal Medicine: A Practical Manual for Clinicians in Primary and Secondary Care*. 4th edn. Churchill Livingstone, UK, 2013.

Silver T. *Joint and Soft Tissue Injection: Injecting with Confidence*. 5th edn. Radcliffe Publishing, UK; 2011.

Silvestri E, Muda A, Sconfienza LM. *Normal Ultrasound Anatomy of the Musculoskeletal System: A Practical Guide*. Springer, Milan; 2011.

Spinner D, Kirshner J, Herrera J, editors. *Atlas of Ultrasound Guided Musculoskeletal Injections (Musculoskeletal Medicine)*. Springer, New York; 2013.

Wakefield RJ, D'Agostino MA. *Essential Applications of Musculoskeletal Ultrasound in Rheumatology*. Saunders, Philadelphia; 2010.



## Journals

- *Ultrasound*
- *Manual Therapy*
- *Radiology*
- *Rheumatology*
- *Rheumatology and Physical Medicine*
- *Rheumatology International*

These journals are accessible through the University of Essex library E-journals site. Your local hospital library may also have these or other useful journals.

Several relevant journals can be found free online with strategic searching. Google Scholar can be a useful start. Several sites have access to archived issues of journals.

## Useful websites

[www.clinicalevidence.com](http://www.clinicalevidence.com)

[www.nice.org.uk](http://www.nice.org.uk)

[www.cochrane.org](http://www.cochrane.org)

Your Moodle contains a wide variety of learning tools.

Website addresses are correct at the time of publication, but are subject to change.

