

## The School of Sport, Rehabilitation & Exercise Sciences SE715 Introduction to Musculoskeletal Ultrasound

### Introduction

This module is recommended for you as an experienced physiotherapist, rheumatologist, specialist nurse, or general practitioner working in the area of musculoskeletal medicine, if you are keen to expand your knowledge and skills in order to manage patients with a range of musculoskeletal conditions beyond your current scope of practice. Ideally, you will have access to an ultrasound machine in the workplace but some advice can be provided with regard to short term loans of equipment. This module is available to you if you are working in musculoskeletal practice and are registered with an appropriate professional/regulatory body.

### Lead tutors for the module

- Mark Maybury – Extended scope practitioner, physiotherapist and sonographer
- Prof. Dasgupta – Consultant Rheumatologist

### Learning outcomes

This module aims to develop the knowledge and skill required to competently use the application of ultrasound independently in the musculoskeletal field. By the end of this module you would be expected to be able to:

- Demonstrate an effective examination of the main peripheral joints using ultrasound
- Critically evaluate the use of ultrasound as a diagnostic tool with musculoskeletal pathologies
- Compare and contrast normal and pathological findings identified through the use of ultrasound
- Evaluate the role of ultrasound within your professional practice

### Module outline

- Basic introduction to technology and scientific principles of ultrasound
- Practical workshops exploring scanning techniques and procedures
- Role of ultrasound in musculoskeletal assessment
- Differentiation of normal and pathological musculoskeletal tissue
- Role of ultrasound in rehabilitation as biofeedback tool
- Professional issues relating to clinical use of application
- Evidence exploring the role of ultrasound in musculoskeletal diagnosis and possible influence in management outcomes

### Assessment strategy

100 per cent Coursework Mark

The summative assessment consists of 2 components:

1. Reflective portfolio evidencing application of ultrasound to work-based practice, professional issues, clinical reasoning and scanning log-book, - 60% weighting  
Scanning log-book should contain:
  - Record of 5 scans undertaken during the taught sessions
  - Record of 20 scans undertaken during the independent study/supervised practice time.
  - Students do not need a work based supervisor to assess their scanning but colleague support is valuable when available
2. Two case studies (1500 words each) – 40% weighting

### Module dates

The module will be delivered at Colchester campus, University of Essex, Wivenhoe Park, Colchester CO4 3SQ.

**You are expected to attend all study days.**

Dates can be found on the Module Calendar: <https://www1.essex.ac.uk/sres/documents/sres-cpd-module-calendar.pdf>

### Module fee

This module is worth 15 credits and is available at Level 7.

Fee details can be found at: <https://www1.essex.ac.uk/sres/documents/sres-cpd-module-fees.pdf>

### Module pre-requisites

Students may pursue an application for the module, provided they have:

- Arranged for a suitable funding source **AND**
- Meet the entry requirements specified below

### **Entry requirements**

All entrants must meet the following requirements:

- A relevant first degree OR a relevant professional experience or qualifications that demonstrates ability to study at Level 7
- A minimum of 1 years post-registration experience
- Current Registration with the relevant UK or equivalent professional body
- HCPC or equivalent registration e.g. in case of doctors (GMC) and Nurses (NMC)
- Access to a suitable ultrasound machine

### **Funding and how to apply**

In the first instance approach your Education Liaison Manager to see if funding can be secured via your employer.

There is further information on other sources of funding at <https://www1.essex.ac.uk/hhs/cpd/funding.aspx>

Once you have secured funding please fill in the module application form which can be found under the

"Requirements and Forms" tab on the following page: <https://www1.essex.ac.uk/sres/pg/default.aspx>

Following completion of the application form and having had it signed off by your manager and your education liaison manager (if employer funded), please forward it to [sres@essex.ac.uk](mailto:sres@essex.ac.uk).

### **For further information on this module, please contact**

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### **Bibliography**

#### **Indicative reading:**

- Bradley M. and O'Donnell. 2009. Atlas of Musculoskeletal Ultrasound Anatomy. 2nd Edition Cambridge Medicine

#### **Websites:**

- Sardinian Mediterranean Imaging Research Group: <http://www.smirg.org/lectures.php>
- European Society of Musculoskeletal Radiology.