

Programme Aim and Title	Postgraduate Certificate in Musculoskeletal Ultrasonography Diagnostics  (PGCert MSK US Diagnostics)
Intermediate Awards Available	N/A
Teaching Institution(s)	Homerton University Hospital in collaboration with University of East London
Alternative Teaching Institutions (for local arrangements see final section of this specification)	N/A
UEL Academic School	Health Sport and Bioscience
UCAS Code	N/A
Professional Body	British Medical Ultrasound Society (BMUS)  The programme provides 60 CPD credits in accordance with the CPD Scheme of the Royal College of Radiologists (RCR).
Relevant QAA Benchmark Statements	The nature and characteristics of the programme of post graduate study will follow subject benchmark statements aligned to Medicine ( <a href="http://www.qaa.ac.uk">www.qaa.ac.uk</a> ).
Additional Versions of this Programme	N/A
Date Specification Last Updated	July 2021

## Programme Aims and Learning Outcomes

### **This programme is designed to give you the opportunity to:**

This programme has been developed at the Homerton University's Sport and Musculoskeletal Medicine Department in collaboration with University of East London's (UEL) Professional Health Sciences subject areas within the School of Health, Sports and Bioscience. The programme is aimed at the working healthcare professionals including, Medical Practitioners, Physiotherapists, Podiatrists, Osteopaths, and Sonographers who wish to extend their skills to include diagnostic ultrasonography in the management of musculoskeletal pathologies.

The Postgraduate Certificate in Musculoskeletal Ultrasonography Diagnostics (PGCert MSK US Diagnostics) aims to support and formally recognise the professional development of these clinicians working in the field of Musculoskeletal Medicine developing both knowledge and practical clinical skills in the application of diagnostic ultrasound.

The PGCert MSK US Diagnostics may be completed as a part-time (PT) or full-time (FT) programme of study. The programme consists of 2 core 30 credit modules (level 7). Module 1 is delivered in attendance as block release. Module 2 consists of attendance but is predominantly a work-based learning module.

It is desirable that Module 1 of the PGCert MSK US Diagnostics is successfully completed prior to attending Module 2, although this is not a prerequisite.

The PGCert MSK US Diagnostics may be completed in conjunction with the Postgraduate Certificate in Musculoskeletal Ultrasonography Injection Therapy (PGCert MSK US Injection Therapy) and if both are successfully completed the student may be awarded a Postgraduate Diploma in Musculoskeletal Ultrasound (PGDip MSK US).

**The aims of the programme are to:**

- Cultivate a safe and competent Practitioner in the use of diagnostic ultrasound within the speciality of musculoskeletal medicine.
- Develop an understanding of anatomical knowledge as it pertains to musculoskeletal ultrasound imaging.
- Introduce the use of clinical ultrasonography as a resource for enhancing clinical intervention and diagnosis with in your own practice.
- Encourage a focused knowledge of anatomy for specific interpretation and reporting of the normal and pathological state.

**What you will learn:**

***Knowledge***

1. To critically reflect on the current literature in the field of study for physics and instrumentation for the interpretation of clinical musculoskeletal ultrasound.
2. To demonstrate an advanced knowledge and understanding of upper and lower extremity anatomy for detailed interpretation ultrasound imaging.

***Thinking skills***

3. To create hypotheses to assist in the clinical diagnosis of musculoskeletal pathology from ultrasound images of the upper and lower extremity of healthy adults.

***Subject-Based Practical skills***

4. To generate high quality ultrasound imaging for the upper and lower extremity as a resource for enhancing clinical intervention and diagnosis of musculoskeletal pathology.

***Skills for life and work (general skills)***

5. To reflect on the skills required for original thought and evidence to generate hypotheses for clinical problem solving.

**Learning and Teaching:**

***Knowledge is developed through***

1. Guided reading supported by a comprehensive reading list and programme manuals.
2. Classroom based lectures and practical sessions.
3. Practical sessions in the Anatomy Laboratory with cadavers and prosections.

***Thinking skills are developed through***

1. Reflection on case based studies and work based portfolio.
2. Practical session discussions.

***Subject-based practical skills are developed through***

1. Classroom based practical sessions.
2. Anatomy laboratory practical sessions.
3. Clinical placement and work with mentor.

***Skills for life and work (general skills) are developed through***

1. Organisation and completion of clinical placement.
2. Reflection of professional and medicolegal aspects of musculoskeletal diagnostic procedures.

## Assessment

Module Code	Module Name	Component of Assessment	Structure	Percentage Weighting	Word count/Duration
PT7159	Musculoskeletal Ultrasonography: The Science, Instrumentation and Application of the upper & lower extremity.	Component 1: Physics of Ultrasound Written Paper	2 blocks of 3 & 2 days of Tutor led teaching (30 hours). Tutor led practise with live models.	20% Pass/Fail	60mins
PT7159	Musculoskeletal Ultrasonography: The Science, Instrumentation and Application of the upper & lower extremity.	Objective Structured Clinical Examination (OSCE). Examined by course Tutors and 2 <sup>nd</sup> marked by UEL staff.		80% Pass/Fail	70 min
PT7160	Musculoskeletal Ultrasonography: Competency in Ultrasonography within Clinical Practice.	Clinical Portfolio: Minimum 250 scans. Marked by Clinical Mentor. Reviewed and marked by course Tutors.	Mentored work based placement. Additional 2 days of Tutor led tutorial and practise (14 hours).	100% Pass/Fail	3-6months

For a successful Work based learning experience and achievement of Module 2 learning outcomes, a work based clinical mentor is required to observe and review clinical musculoskeletal images produced by the student. This is in accordance with practical training suggested by the Royal College of Radiologists who advocate regular appraisal throughout clinical training.

Students with disabilities and/or particular learning needs should discuss assessments with the Programme Leader to ensure they are able to fully engage with all assessment within the programme.

## Clinical Placements

Module 2 consists of one block of 2 days teaching incorporating the background scientific principles and instrumentation of ultrasound with the practical application within the context of normal and abnormal anatomy. Teaching takes place at the Anatomy Laboratory at Queen Mary University of London with students having the opportunity to work with both anatomical dissections and cadavers to complement their anatomical knowledge and to have an introduction to guided injection techniques.

In addition, students will need to complete a work-based portfolio of 250 scans under the direct supervision of a suitable mentor submitting the finished portfolio for the successful completion of the module. It remains the responsibility of the student to ensure that they have an appropriate mentor. There is no definitive qualification that is required for the mentor. However, it would be expected that one or more of the following are met,

1. Radiologist with regular MSK US list
2. Sonographer, Physiotherapist or Sports Physician with a PGCert / Dip
3. Sonographer, Physiotherapist or Sports Physician who may not have a recognised qualification but who has regular MSK US list.

## Programme Structure

All programmes are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

- 3 Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree programme.
- 4 Equivalent in standard to the first year of a full-time undergraduate degree programme.
- 5 Equivalent in standard to the second year of a full-time undergraduate degree programme.

- 6 Equivalent in standard to the third year of a full-time undergraduate degree programme.
- 7 Equivalent in standard to a Master's degree.

Programmes are made up of modules that are each credit weighted.

The module structure of this programme:

Level	Module Code	Module Title	Credit Weighting	Core/Option	Available by Distance Learning? Y/N
7	PT7159	Musculoskeletal Ultrasonography: The Science, Instrumentation and Application of the upper & lower extremity	30	Core	N
7	PT7160	Musculoskeletal Ultrasonography: Competency in Ultrasonography within Clinical Practice	30	Core	N

*Please note: Optional modules might not run every year, the programme team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.*

### Requirements for gaining an award

In order to gain a Postgraduate Certificate in either programme you will need to obtain 60 credits at Level 7.

### Typical Duration

The duration of the PGCert MSK US Diagnostics is one calendar year if full-time.

The time limit for completion of a programme is six years after first enrolment on the programme

## Further Information

More information about this programme is available from:

- The programme website [www.mskus.co.uk](http://www.mskus.co.uk) • The UEL web site ([www.uel.ac.uk](http://www.uel.ac.uk) )
- The Course Director Dr. Peter Resteghini [p.resteghini@nhs.net](mailto:p.resteghini@nhs.net)
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- The programme handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages

All UEL programmes are subject to thorough programme approval procedures before we allow them to commence. We also constantly monitor, review and enhance our programmes by listening to student and employer views and the views of external examiners and advisors.

Additional costs:

There are no additional costs associated with the programme.

## Alternative Locations of Delivery

Queen Mary University of London Anatomy Labs