

IPEM

Institute of Physics and
Engineering in Medicine

IPEM National Training Scheme for Bone Densitometry

2027-2028





TABLE OF CONTENTS

<u>INTRODUCTION</u>	03
<u>TRAINING SCHEME TIMELINE</u>	04
<u>E-LEARNING FOUNDATION COURSE</u>	05
<u>LECTURE COURSE</u>	05
<u>ONLINE EXAM</u>	06
<u>FINAL ASSESSMENT</u>	06
<u>ENTRY REQUIREMENTS</u>	07



INTRODUCTION

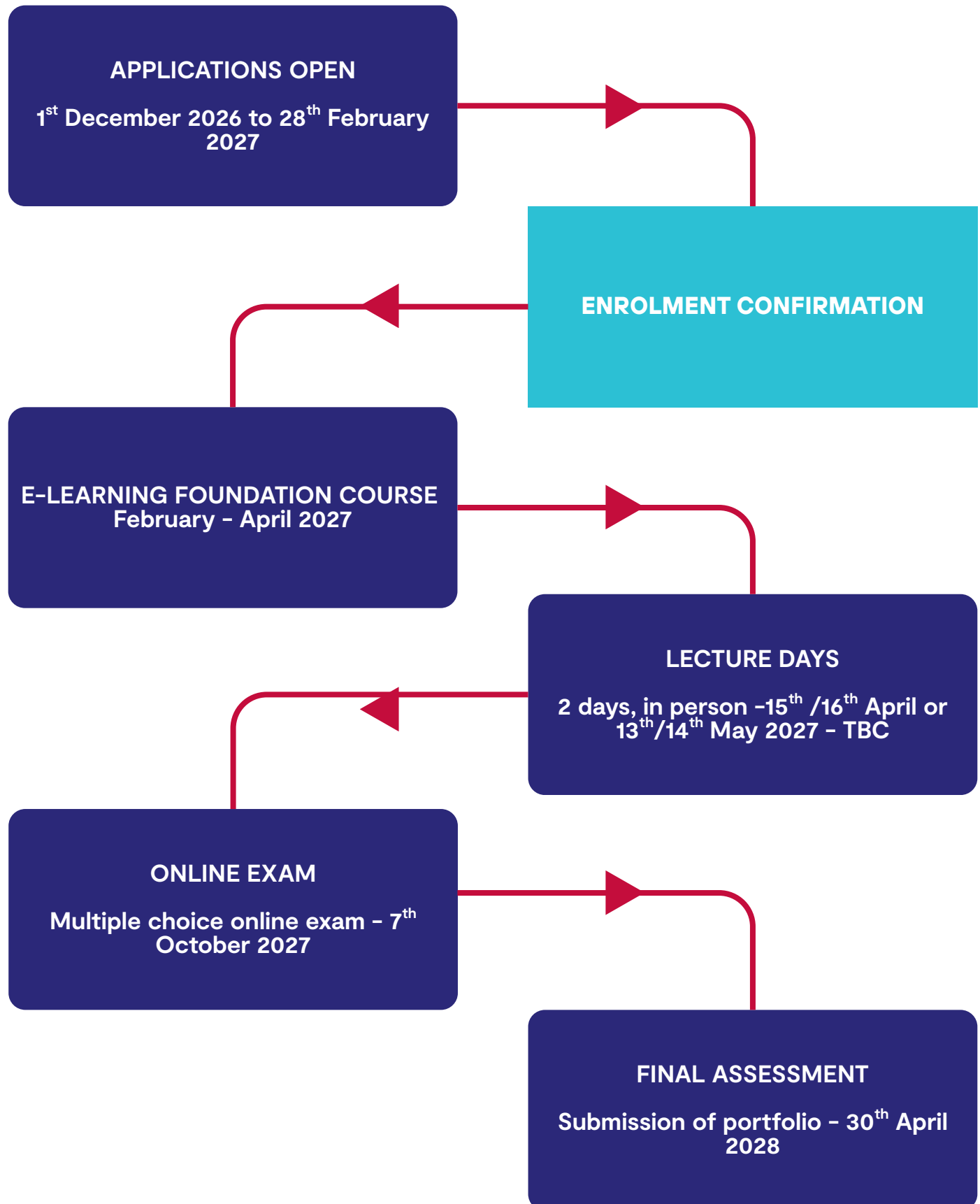


This training is essential for healthcare professionals who carry out bone densitometry or work in related clinical research. The training is aimed at DXA operators and we therefore prioritise applications from those who are actively scanning.

The National Training Scheme for Bone Densitometry enables you to:

1. Explain the physical and statistical principles underpinning DXA, and its role in osteoporosis identification, fracture risk assessment, and patient management.
2. Apply techniques and quality assurance measures to produce reliable and reproducible DXA scans.
3. Evaluate DXA scans and measurements to determine their quality, reliability, and suitability for clinical reporting.

Training Scheme Timeline



e-Learning Foundation Course



This course will provide you with a fundamental knowledge of osteoporosis and Dual Energy X-Ray Absorptiometry (DXA). On completion of the course, you will have a basic understanding of:

- Osteoporosis, its assessment and prevention.
- The effects of and regulations on radiation associated with DXA.
- The principles and practical techniques of DXA.

Access to the e-Learning Foundation Course will be given upon enrolment. This must be completed in order to attend the Lecture Days.

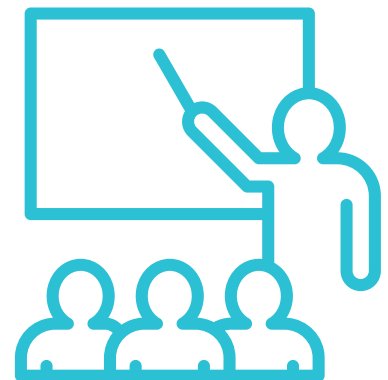


Lecture Course



A two-day in person course covering:

- Understanding osteoporosis, fracture risk, prevention and treatment.
- The principles of DXA technology and bone densitometry.
- Radiation protection and safe scanning practice.
- Practical DXA scanning techniques and patient positioning.
- Interpretation of bone density results and scan reports.
- Quality assurance governance and service standards.
- Statistics and data analysis relevant to bone densitometry.
- Specialist applications, including vertebral fracture assessment, whole-body DXA paediatric densitometry.
- Interactive workshops covering scan interpretation, case studies, quality control and optimisation of DXA systems.





Following the lecture course, those enrolled will be required to complete an online examination. This will take place on Thursday 7th October 2027.

The exam will be made up of multiple choice questions and will assess your knowledge and understanding. In particular, the exam will include:

- **Quality Control (QC)** – assessing your understanding of QC procedures and processes.
- **Scan Print Out** – assessing your understanding of all the information presented on a scan print out.



Final Assessment



After successful completion of the exam, you will be required to complete a portfolio submission.



The purpose of the portfolio will be to demonstrate your understanding and practical ability in bone densitometry. This will be split into two sections:

1. **Scan Techniques** – To evidence the accuracy and consistency of your scan technique, including patient positioning, scan acquisition and scan analysis.
2. **In-depth case studies** – To evidence your deeper knowledge and understanding of bone densitometry in clinical practice, including how results are interpreted and applied.



Suitable Supervisor:

To enrol on the scheme, you will need a Supervisor who has experience of DXA scanning and will be able to support you with gaining the hands on experience needed for your portfolio.

Your supervisor and/or line manager should also be able to provide you with protected time for your training.

If you have any questions about entry requirements, please contact training@ipem.ac.uk

Applicants will be required to meet the following requirements:

1. Minimum of an FHEQ (or equivalent) Level 4 qualification in a relevant subject. Copy of academic qualifications will need to be supplied
2. English language proficiency
3. Be in a role which involves active DXA scanning
4. A suitable Supervisor
5. Training Plan – a template will be available

English Language requirements:

The ability to communicate effectively in english is critical to working effectively as a healthcare professional in the uk. For entry, one of the following will need to be evidenced:

- FHEQ Level 4 or Level 6 qualification completed in the UK, or a country recognised as majority English speaking by the Home Office.
- British Citizenship.
- IELTS – minimum score of 7.0 with no element below 6.5.