

# METROLOGY FOR EXTERNAL RADIOTHERAPY



## Course overview

This practical training, allows to acquire a methodology in order to ensure metrological traceability beams and to improve the accuracy of radiation treatments. The different sources of the most common uncertainties are analyzed.

## Who is the course for ?

- medical physicists,
- radiotherapy technicians
- engineers, researchers, PhD in Medical Physics

## Entry requirements

practice an activity in radiotherapy

## Competences covered

- Understand the reference dosimetry for photons and electrons beams
- Apply and understand TRS protocols used to measure the reference dose
- Be aware of the impact of the different factors involved in the dose measurement
- Read and use data from a calibration certificate
- Analyze the impact of uncertainties / errors on the result of the dose measurement

**Duration** 2 days

**Location** DOSEO Platform, CEA Saclay

**Group limited to** 14 persons

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**Course code** 39B

Please contact us for more information on this course.



linear accelerator of DOSEO platform  
(Credit: L Godart/ CEA)

## Course content

- Metrological traceability from the primary reference to clinical beam
- Description of the various factors influencing the dose measurement
- Uncertainties on the measured dose
- Practical situation : ionization chamber measurements



MEDICAL FACILITIES



PRACTICAL WORK



PRACTICE FOR REAL LIFE SCENARIOS

## Why take this course?

- ✓ metrological expertise of **CEA / LNHB** trainers
- ✓ Scenario on radiotherapy linear accelerator
- ✓ **Partnership with DOSEO**



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