

M.Sc

Medical and Radiological Physics



WHERE?

Centre for Medical and Radiation Physics, National Institute of Science Education and Research (NISER), Jatni, Odisha, an autonomous institute under the Department of Atomic Energy (DAE), Government of India affiliated to the Homi Bhabha National Institute, Mumbai.

ABOUT

Medical physics is the branch of science that mainly deals with the applications of ionizing radiation in health care through radiotherapy, diagnostic radiology, nuclear medicine and the associated radiological protection. Specifically, for past several decades, ionizing radiation is being used worldwide for the treatment of cancer and diagnosis of the various diseases.

The Master's program is the first of its kind in the State of Odisha. It is also the first of its kind at Master's level being conducted by an institution of the Department of Atomic Energy, Government of India.

SCOPE

The demand for number of radiological and medical equipment is tripling, so the number of the medical physicists also will increase by three times. Hence, there is a **need for more medical physicists to be trained**.

Skills developed by students

- Safe use of diagnostic and treatment radiation equipment
- Quality assurance of radiation machines, radiation treatment planning and radiation treatment delivery
- In-depth knowledge on the radiation machine structure and function
- Understanding of principles and physical laws governing the biological effects of radiation
- Solution of radiation therapy technology related problems
- Train junior technicians in radiation therapy and trainee oncologists on the relevant aspects of medical physics
- Innovation in radiation therapy technology to enhance safety, improvement of efficacy and cost effective assurance of service

WHO CAN APPLY AND HOW?

Candidates who wish to apply should meet the minimum criteria below:

1. First class (60% and above) in Bachelor's degree in Physical Sciences or an equivalent degree with Physics as one of the main subjects from a recognized University. ^a
2. Candidates should have JAM 2025 / JEST 2025 scorecards.

Only online applications through the website are accepted.

^aCandidates who are appearing in their Final Examination for Bachelor's Degree can also apply provided they submit an undertaking that they will submit the Qualifying degree certificates by the time of Interview.

PROGRAM DETAILS AND SUPPORT

The master's program in medical and radiological physics has been designed according to the syllabus prescribed by the Homi Bhabha National Institute (HBNI), Mumbai. It has a rigorous curriculum with emphasis on physics, radiology and its medical applications.

Degree awarding institute	: Homi Bhabha National Institute, Mumbai
Duration of the course	: 2 years Master's program and 1 year mandatory internship
No. of seats	: 10
Minimum qualification and selection	: 60% marks in B. Sc with physics as a main course and JAM 2025 / JEST 2025 scorecards. The shortlisting will be based on JAM 2025 / JEST 2025 marks, followed by interview for selection
Fellowship	: Rs. 16,000/- p.m. + HRA and mentorship grant as per DAE rules, during master's program
Internship hospitals as per AERB guidelines	: All India Institute of Medical Sciences, Bhubaneswar, Acharya Harihar Post Graduate Institute of Cancer, Cuttack and Tata Memorial Centre, Mumbai. <i>Internship will be offered only to students who have a CGPA of 6 or greater in the course.</i>

More details about the program are available at: <https://www.niser.ac.in/cmrip/>

UMBRELLA INSTITUTIONS



Department of Atomic Energy (DAE)

Anushakti Bhavan, Chhatrapati Shivaji Maharaj Marg, Mumbai, Maharashtra 400001



Homi Bhabha National Institute (HBNI)

2nd floor, BARC Training School Complex, Anushaktinagar, Mumbai, Maharashtra 400094



Atomic Energy Regulatory Board (AERB)

Niyamak Bhavan, Anushakti Nagar, Mumbai, Maharashtra 400094, India

COLLABORATING INSTITUTIONS



All India Institute of Medical Sciences (AIIMS), Bhubaneswar

Sijua, Patrapada, Bhubaneswar, Odisha 751019



Acharya Harihar Post Graduate Institute of Cancer (AHPGIC)

SCB Medical Road, Mangalabag, Medical college post office, Cuttack, Odisha 753007



Tata Memorial Centre (TMC)

Dr. E Borges Road, Parel, Mumbai, Maharashtra 400 012

IMPORTANT DATES

Date of Activation of online application	: 10 th April 2025
Last date of online application	: 15 th May 2025
Announcement of shortlisted applicants	: 30 th May 2025
Date of interview	: 1 st - 4 th July 2025
Announcement of final selection list	: 5 th July 2025

WEBPAGE

For applying online, please visit the 'Announcements' section of the NISER website <https://www.niser.ac.in/> or scan the QR code.



CONTACT

Centre for Medical and Radiological Physics,
National Institute of Science Education and Research (NISER),
PO-Bhimpur-Padanpur, Via-Jatni, Khurda-752050, Odisha, India
Email: cmrp@niser.ac.in