



**ASTRON**  
INSTITUTE OF INTERNATIONAL STUDIES  
PRIDE IN EXCELLENCE

**For Registration Call  
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### Benefits to the Individual

- Nuclear Medicine/PET will continue to be a field at the forefront of modern clinical medicine and technological development.
- The development of new radio pharmaceuticals for diagnostic and therapeutic purposes Promising research and development of cancer-detecting and cancer-killing agents, such as genetically engineered antibodies.
- The expanding clinical use of exciting new technology known as positron emission tomography/computed tomography (PET/CT) and SPECT/CT, which provide new and unique means of studying biochemistry and metabolism within living tissues

### Benefits to the Organisation

- Organisation growth
- Efficient human resource management
- Work efficiently and effectively
- Improved quality of service provider

## ASTRON INSTITUTE OF INTERNATIONAL STUDIES

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## ONLINE DIPLOMA PROGRAM IN NUCLEAR MEDICINE TECHNICIAN



## About AIIS

**Astron Institute of International Studies (AIIS)**, an academic vertical of Astron Group, Gurgaon, is focused on the intensively growing and continually developing fields of public and community health with emphasis on the underserved section of society at large. It envisions promoting excellence in Healthcare, Research, Education, Training, Skill Enhancement and Consultancy Services. According to National Health Policy 2015 there is a need for planned expansion of allied technical skills including medical and paramedical workforce. AIIS, with its Vision and Mission to contribute to the fulfillment of that goal, works towards development of healthcare workforce with specialised skills and knowledge.

## Program Overview

Nuclear medicine Technician/ technologist is a highly specialized health care professional who looks at how the body functions in order to help in diagnosis and treatment of a range of conditions and diseases. Nuclear medicine includes imaging, patient care, chemistry, physics, computer technology and medicine. Nuclear medicine technicians prepare and administer small amounts of radioactive substances called radiopharmaceuticals as well as other medications to patients for diagnosis and treatments.

Radiopharmaceuticals are made up of unstable atoms of radionuclides that emit radiation spontaneously. Nuclear medicine technician uses specialized camera systems to detect the radiopharmaceuticals which then creates a precise picture of the part of the body being imaged. The nuclear medicine technician monitors the characteristics and functions of tissues or organs in which the radiopharmaceuticals localize. Abnormal areas show higher or lower concentrations of radioactivity than normal. Physicians use these images to diagnose molecular, metabolic, physiological, anatomical and pathological conditions.

## Who is a Nuclear Medicine Technician

Nuclear medical technicians or technologists work in hospitals and medical facilities working with patients to administer radiation tests and procedures. They require an associate's degree, and usually must obtain state licenses or professional certification.

## Objectives

To orient and train technologists in the use of radioactive materials for therapeutic and diagnostic Nuclear Medicine/PET procedures.

To establish for the community a reliable source of Nuclear Medicine/- PET technologists whose skillful and compassionate work with patients will be satisfying to themselves and a credit to the profession.

## Eligibility Criteria

Minimum eligibility is 10+2 from Central or State board with Science.

## Technician Program Duration

Duration	Certification
One Year (9 Months Theory Classes and 3 Months Hospital Training)	• Astron Institute of International Studies (AIIS)

## Contents

1. Introduction to nuclear medicine
2. Physics and chemistry of nuclear medicine
3. Imaging instrument & modalities
4. Data analysis
5. Performance tests and maintenance
6. Nuclear medicine & central nervous system
7. Nuclear medicine & respiratory system
8. Nuclear medicine & cardiovascular system
9. Nuclear medicine & digestive system
10. Precautions while dealing with radiations

## Course Highlights

- Program pedagogy which includes Webinar, Student Faculty Chat by Subject Experts and Project Work.
- Reference subject through E-library.
- Program materials developed by Experts.
- Each block culminating into a qualifying Assignment.
- Credit based teaching outcomes for global application

## Evaluation and grading

Evaluations will collate candidate performance based on Self Assessment, Term End Assessment, completion of Project Work, participation in Webinar, participation in student-faculty chat. Grading will be done based on alphabetical grade point percentage.

## Career Pathway

- Biological Technicians
- Diagnostic Medical Sonographers and Cardiovascular Technologists and Technicians, Including Vascular Technologists
- Medical and Clinical Laboratory Technologists and Technicians
- Nuclear Technicians
- Radiation Therapists
- Radiologic and MRI Technologists

