B.Sc Nuclear Medicine Technology

A Complete Mentor's Guide for Students

Institutions · Admission · Career · Salary · Masters · Scams to Avoid

---

Prepared especially for students and families from Western Uttar Pradesh and rural India. This guide covers everything you need to make an informed decision — from understanding the course to landing a job in India or abroad.

Contents

1. What is Nuclear Medicine Technology?

Nuclear Medicine Technology is a specialised allied health profession that uses very small amounts of radioactive substances (radiopharmaceuticals) to diagnose and treat diseases. Unlike X-rays or CT scans that show anatomy (structure), nuclear medicine shows how organs *function* — making it uniquely powerful for detecting cancer, heart disease, thyroid disorders, bone infections, and neurological conditions at an early stage.

Nuclear Medicine Technologists (NMTs) operate the equipment, prepare and administer radiopharmaceuticals, perform scans such as PET-CT, SPECT, and bone scans, and ensure radiation safety for patients and staff.

Key Technologies Used

PET-CT (Positron Emission Tomography): Gold standard for cancer staging; one of the fastest-growing imaging modalities worldwide.

SPECT (Single Photon Emission CT): Used for cardiac imaging, bone scans, brain perfusion studies.

Gamma Camera Imaging: Thyroid scans, renal function studies, hepatobiliary studies.

Radioiodine Therapy (I-131): Treatment of thyroid cancer and hyperthyroidism.

Radiopharmacy: Preparation of radiopharmaceuticals under strict protocols.

India currently has 400+ nuclear medicine centres and this number is growing rapidly as PET-CT becomes standard of care in oncology. Demand for trained NMTs far exceeds supply.

2. Is This Course Right for You? (Honest Assessment)

You are a GOOD FIT if:

✔ You scored well in Physics, Chemistry, and Biology in Class 12

✔ You are detail-oriented, patient, and comfortable in a clinical environment

✔ You are interested in technology + medicine (a rare and valuable combination)

✔ You are willing to study and work in a metro city for at least the initial years

✔ You understand that first 2–3 years in the field may involve modest salaries

Think carefully if:

■ You are primarily looking for a course close to home in Western UP — very few seats exist locally

■ Your family cannot support you in another city for 4 years

■ You have very low marks in Physics — the course has significant physics content

■ You expect high salaries immediately after B.Sc

Mentor's Note: This is a **niche, high-skill, high-demand** field. Graduates from good institutions rarely struggle for employment. It is a better long-term investment than many common paramedical courses — but requires commitment and willingness to relocate.

3. Course Structure, Duration & Syllabus

The B.Sc Nuclear Medicine Technology is a **4-year programme**: three years of academic coursework plus one year of mandatory clinical internship in an accredited hospital.

Year	Major Subjects
Year 1	Anatomy, Physiology, Biochemistry, Basic Physics, Medical Terminology, Hospital Orientation
Year 2	Nuclear Physics, Radiation Biology, Radiopharmacy, Instrumentation, Pathology, Pharmacology
Year 3	Clinical Nuclear Medicine, PET-CT Procedures, SPECT Imaging, Radiation Safety, Research Methodology
Year 4 (Internship)	Rotational postings: Nuclear Medicine Dept., Radiopharmacy Lab, Radiation Safety, Oncology Wards

4. Eligibility Criteria

Criterion	Requirement
Qualifying Exam	Class 12 (10+2) with Physics, Chemistry, Biology as compulsory subjects
Minimum Marks	50% aggregate in PCB (General); 40–45% for SC/ST/OBC at most institutions
Age	Minimum 17 years on or before December 31 of the admission year
English	English as a subject in Class 12 (compulsory at JIPMER and AIIMS)
Mathematics	Some institutions (e.g., Manipal) also accept PCM students
Medical Fitness	Basic medical fitness; no colour blindness for radiation work

5. Admission Process & Entrance Exams

Admission to B.Sc NMT does **not** require NEET in most institutions — an important advantage for students who did not qualify NEET.

Route	Institutions	Exam / Process
AIIMS Entrance Exam	AIIMS Delhi, Rishikesh, other AIIMS	AIIMS BSc (AHS) entrance test — conducted annually (usually May–June). Highly competitive.
JIPMER Entrance	JIPMER Puducherry	JIPMER BSc AHS entrance exam. Merit-based.
CUET UG	Central Universities, some deemed universities	Common University Entrance Test by NTA. Growing number of colleges accept it.
University Entrance Test	Manipal (MET), CMC Vellore, KMC	Each institution conducts its own entrance exam.
Direct Merit (12th marks)	Many private colleges	Admission based on Class 12 PCB marks. No separate exam needed.
State Counselling	State govt. medical college affiliates	UP, Bihar, Maharashtra etc. may conduct state-level allied health counselling.

Typical Timeline: Notifications: Jan–Mar | Exams: Apr–Jun | Results: Jun–Jul | Counselling: Jul–Aug | Classes begin: Aug–Sep.

6. Government Institutions — Best Value

These are the gold standard. Fees are almost negligible, faculty are among the best in India, and the degree commands enormous respect nationally and internationally.

Institution	Location	Course	Approx. Annual Fees	Affiliation / Recognition
AIIMS New Delhi	New Delhi	B.Sc NMT M.Sc NMT	Rs. 500–1,000 (~Rs. 2,800 total 4 yr)	AIIMS Act; AERB-recognised
JIPMER	Puducherry	B.Sc NMT (3+1 yr)	Rs. 2,000–5,000 p.a.	JIPMER autonomous; AERB-recognised
PGIMER Chandigarh	Chandigarh	M.Sc NMT (PG only)	Nominal	Panjab University; AERB-recognised
SGPGI Lucknow (UP) ★	Lucknow, UP	M.Sc NMT (PG)	Nominal govt. rates	BB Ambedkar Univ.; AERB-recognised
Dr. RML IMS Lucknow (UP) ★	Lucknow, UP	M.Sc NMT (PG)	Government fees	Lucknow University
BARC — Radiation Medicine Centre	Parel, Mumbai	DMRIT (Diploma)	Nominal	Homi Bhabha National Inst.
Tata Memorial Hospital	Mumbai	DFIT (Diploma)	Nominal	Homi Bhabha National Inst.
SKIMS	Srinagar, J&K;	M.Sc NMT	Govt. rates	SKIMS autonomous; AERB-recognised
SVIMS	Tirupati, AP	B.Sc NMT	Govt. rates	SVIMS autonomous; AERB-recognised
Guru Gobind Singh MC	Faridkot, Punjab	M.Sc NMT	Govt. rates	Baba Faridkot Univ.; AERB-recognised
AIIMS Rishikesh	Rishikesh, UK	B.Sc AHS (NMT)	Rs. 1,000–2,000 p.a.	AIIMS autonomous
AIIMS Bhopal / Raipur / Jodhpur	Various	B.Sc AHS	Nominal	AIIMS autonomous

★ Green rows = institutions in Uttar Pradesh — most accessible for students from Western UP.

AIIMS Delhi and JIPMER offer the B.Sc programme but seats are extremely limited (5–8 per year). SC/ST/OBC reservations apply and can improve chances significantly.

7. Private Institutions

Private institutions have more seats and easier admission but significantly higher fees. Choose only NCAHP/UGC/NMC/university-recognised institutions.

Institution	Location	Approx. Fees (p.a.)	Recognition & Notes
Manipal College of Health Professions (MCHP)	Manipal, Karnataka	Rs. 2.5–3.5 L	MAHE (Deemed Univ); AERB-recognised. B.Sc NMT, M.Sc NMT, PG Dip. Most reputed private option.
Christian Medical College (CMC)	Vellore, Tamil Nadu	Rs. 80,000–1.5 L	TN Dr. MGR Univ; AERB-recognised. B.Sc NMT, PGDNMT. Exceptional reputation. Best value private.
Sri Ramachandra Medical College	Chennai, Tamil Nadu	Rs. 1.5–2.5 L	Sri Ramachandra Univ; AERB-recognised. B.Sc NMT.
Kovai Medical Centre & Hospital	Coimbatore, TN	Rs. 1–1.5 L	TN Dr. MGR Univ; AERB-recognised. B.Sc NMT.
MIOT Hospital	Chennai, TN	Rs. 1–1.5 L	TN Dr. MGR Univ. B.Sc NMT.
Cancer Institute (Adyar)	Chennai, TN	Rs. 50,000–80,000	TN Dr. MGR Univ. B.Sc NMT. Very affordable.
Datta Meghe Institute (DMIHER)	Wardha/Nagpur, MH	Rs. 1.5–2.5 L	Deemed University. B.Sc NMT.
Hindustan Inst. of Technology & Science	Chennai, TN	Rs. 1–1.5 L	Deemed University. B.Sc NMT.
Adamas University	Kolkata, WB	Rs. 1–1.5 L	State Univ; AERB-recognised. PG Diploma NMT.
Sri Sathya Sai Inst. of Higher Learning	Anantapur, AP	Minimal (trust-funded)	SSSIHL (Deemed Univ); AERB-recognised. M.Tech NM — PG only. Very competitive.

Mentor's Ranking: CMC Vellore (1st — affordable + excellent), Manipal MCHP (2nd — strong placements, international reputation), Sri Ramachandra Chennai (3rd — solid option).

8. Fee Comparison at a Glance

Category	Annual Fee (Approx.)	Total 4-Year Cost	Remarks
Top Govt. (AIIMS, JIPMER)	Rs. 500–2,000	Rs. 2,000–8,000	Hostel ~Rs. 2,000/month extra. Scholarship possible.
Other Govt. Medical Institutes	Rs. 5,000–20,000	Rs. 20,000–80,000	Highly subsidised. Hostel separately.
CMC Vellore (best value private)	Rs. 80,000–1.5 L	Rs. 3.2–6 L	Excellent value for a private college.
Mid-range Private (Manipal, SRM)	Rs. 1.5–2.5 L	Rs. 6–10 L	Deemed university fees. Hostel extra.
High-end Private	Rs. 2.5–3.5 L	Rs. 10–14 L	Evaluate placement record carefully before enrolling.

Financial Aid: SC/ST/OBC reservations apply at government institutions. UP Scholarship (scholarship.up.gov.in) and Central Sector Scholarship (NSP) can cover fees + maintenance. Always apply — many students miss these.

9. Masters (M.Sc) Programs in Nuclear Medicine Technology

Pursuing an M.Sc significantly boosts salary (often 40–60% increase), opens academic/research positions, and is required for senior technologist and RSO (Radiation Safety Officer) roles.

Eligibility: B.Sc NMT (or equivalent allied health science degree) with minimum 55% marks. Duration: 2 years.

Institution	Location	Fees (Total)	Admission Route	Notes
AIIMS Delhi	New Delhi	Rs. 2,830 (entire course!)	AIIMS MSc Entrance (June)	Most prestigious. ~4–6 seats. Extremely competitive.
PGIMER Chandigarh	Chandigarh	Nominal govt. fees	PGIMER entrance	Excellent research environment. Panjab University.
SGPGI Lucknow ★	Lucknow, UP	Nominal govt. fees	Entrance exam / merit	Best UP option. BB Ambedkar Univ. AERB-recognised.
Dr. RML IMS Lucknow ★	Lucknow, UP	Nominal	Lucknow Univ. counselling	Good regional option. Accessible for Western UP.
Manipal MCHP	Manipal, Karnataka	Rs. 2–3 L total	MET exam / direct	MAHE deemed. AERB-recognised. Good international exposure.
SKIMS Srinagar	Srinagar, J&K;	Govt. fees	SKIMS entrance	AERB-recognised. Limited seats but excellent quality.
Guru Gobind Singh MC	Faridkot, Punjab	Moderate govt.	Baba Faridkot Univ.	AERB-recognised. Good Northern India option.
Adamas University	Kolkata, WB	Rs. 1–1.5 L	University test / merit	PG Diploma; AERB-recognised.
Sri Sathya Sai Inst.	Anantapur, AP	Minimal (trust-funded)	SSSIHL exam	M.Tech NM — unique programme. Very competitive.

★ Green rows = Lucknow-based, most accessible for Western UP students.

Further Advanced Qualifications

Ph.D in Nuclear Medicine / Medical Physics: Available at AIIMS, PGIMER, Manipal, HBNI. Opens academic and research careers.

RSO (Radiation Safety Officer) Certification: Conducted by AERB / NCAHP. Mandatory for senior roles. Significant salary boost.

ARRT Certification (USA): American Registry of Radiologic Technologists — nuclear medicine track. Opens US job market.

NMTCB (USA): Nuclear Medicine Technology Certification Board. Another route to USA employment.

PGDNMT: Post Graduate Diploma at CMC Vellore, Manipal. Good 1-year bridge qualification.

10. Career Paths & Job Roles

Nuclear Medicine Technologist: Hospitals, diagnostic centres, cancer institutes. Core role. High demand.

PET-CT Technologist: Oncology centres, super-speciality hospitals. Best paid NMT role currently.

Radiopharmacy Technician: Preparation of radiopharmaceuticals. Niche but well-paid.

Radiation Safety Officer (RSO): Every nuclear medicine facility is legally required to have one. Separate certification needed.

Senior Technologist / HOD: After 8–12 years. Supervisory and management role.

Faculty / Lecturer: College of Allied Health Sciences. M.Sc minimum; Ph.D preferred.

Clinical Research Coordinator: Pharma companies, CROs. Nuclear medicine knowledge is valuable in oncology trials.

Application Specialist: Equipment manufacturers (GE Healthcare, Siemens, Philips). Excellent pay + travel.

Where Are the Jobs?

Major employers: AIIMS and government medical colleges; Tata Memorial Hospital Mumbai; Apollo, Fortis, Max, Medanta, Narayana Health chains; HCG Cancer Centers; Rajiv Gandhi Cancer Institute Delhi; BARC and DAE facilities; GE Healthcare, Siemens Healthineers, Philips Healthcare (equipment companies).

> Western UP students: Nearest major employers are SGPGI Lucknow, RML IMS Lucknow, KGMU Lucknow, and growing private cancer hospitals in Lucknow, Agra, Meerut, and Delhi-NCR. Delhi-NCR has the highest concentration of PET-CT centres in North India.

11. Salary at Every Career Stage

Salaries vary by institution type, city, and qualifications. Below is an honest guide.

Career Stage	Experience	Govt. Sector (per month)	Private Sector (per month)	Notes
Fresh B.Sc Graduate (Trainee)	0–1 yr	Rs. 15,000–25,000 (stipend)	Rs. 18,000–30,000	Many start as interns. Hostel often provided at govt. hospitals.
Junior Technologist	1–3 yrs	Rs. 30,000–45,000	Rs. 25,000–45,000	Govt. pay scales offer stability. Private PET-CT centres pay more.
M.Sc Graduate (Fresh)	0–1 yr PG	Rs. 35,000–50,000	Rs. 35,000–55,000	M.Sc significantly improves starting salary.
Senior Technologist	5–8 yrs	Rs. 45,000–70,000	Rs. 50,000–90,000	RSO certification adds Rs. 10,000–20,000/month.
HOD / Chief Technologist	10–15 yrs	Rs. 70,000–1,10,000	Rs. 80,000–1,50,000	Top-tier hospitals. Delhi/Mumbai at higher end.
PET-CT Specialist (Private)	3–7 yrs	N/A (rare in govt.)	Rs. 60,000–1,20,000	Hottest subspecialty. Demand exceeds supply in India.
Faculty (Asst. Prof. with Ph.D)	5+ yrs	Rs. 57,000–1,00,000 (UGC pay)	Rs. 40,000–80,000	Excellent job security in academic roles.
Application Specialist (GE/Siemens)	3–6 yrs	N/A	Rs. 60,000–1,50,000	Excellent packages + travel allowance.

> Honest Note: Starting salaries may feel low. The investment pays off at 5–8 years when a B.Sc + M.Sc + RSO certified technologist in a Delhi/Mumbai PET-CT centre earns Rs. 80,000–1,20,000/month — comparable to many MBBS doctors in early career.

12. International Opportunities

NMTs from India with good English and NCAHP-recognised degrees can pursue international careers, though additional certification is usually required.

Country	Salary (Monthly)	Opportunity Level	Requirements for Indian Graduates
USA	USD 5,000–8,000 (~Rs. 4.2–6.7 L)	High 530+ jobs on Indeed	ARRT or NMTCB certification. Credential evaluation (CGFNS). English proficiency.
UK / NHS	GBP 2,500–4,500 (~Rs. 2.7–4.7 L)	Moderate Active NHS recruitment	HCPC registration. NHS overseas NMT drives. IELTS 7.0+.
Australia / NZ	AUD 5,000–8,000 (~Rs. 2.8–4.4 L)	Moderate 62+ jobs on SEEK	MRT Board registration (not AHPRA). Skills assessment. 482 visa sponsorship available.
Middle East (UAE, Saudi, Qatar)	USD 2,500–5,000 + free housing (~Rs. 2–4.2 L)	Active demand	DHA/MOH/HAAD (UAE) or Saudi Commission exam. Tax-free salary very attractive.
Canada	CAD 5,000–7,500 (~Rs. 3–4.5 L)	Growing	CMNMT certification. Provincial registration. CRS points for PR. IELTS required.
Germany / Netherlands	EUR 3,000–5,000 (~Rs. 2.7–4.5 L)	Emerging	German language needed for Germany. Netherlands has English-language hospitals.

Middle East is the most accessible market for Indian NMTs — tax-free salary, proximity to India, large Indian diaspora. Many NMTs from Manipal and CMC Vellore have successful Gulf careers.

13. Work-Life Balance

Working Hours: Typically 8–9 hours/day. Most scans are scheduled daytime. Emergency call-outs are rare.

Weekend Work: Depends on institution. Large centres may require weekend shifts; smaller centres often have fixed weekday schedules.

Physical Demand: Moderate — patient positioning, some standing. Not as demanding as nursing or physiotherapy.

Radiation Exposure: A common family concern. Modern dosimetry is excellent. AERB/NCAHP regulations set strict dose limits. Well-trained NMTs receive doses well within safe limits. Pregnancy policies require temporary reassignment.

Stress Level: Moderate. Dealing with oncology patients can be emotionally challenging but the technology side is rewarding.

Career Longevity: Excellent. Not physically exhausting — many NMTs work well into their 50s and 60s.

Location Flexibility: Limited initially. Jobs concentrated in metro and tier-1 cities. Plan to spend 5–8 years in a metro before potentially returning home.

14. Scams and Frauds — How to Stay Safe

The paramedical education sector has many unscrupulous operators targeting students from smaller cities. Read this carefully.

- **Fake / Unrecognised Colleges:** Many institutions offer 'B.Sc NMT' without recognition from UGC, NMC, or NCAHP. Graduates cannot get jobs. Always verify at ugc.ac.in and ncahp.gov.in.
- **'Management Quota' Seat Brokers:** Agents promise seats at AIIMS/JIPMER for Rs. 5–15 lakhs. AIIMS and JIPMER have NO management quota. Any agent claiming this is a fraud. Report to police.
- **Distance / Online B.Sc NMT Degrees:** Nuclear Medicine Technology CANNOT be taught online. It is a clinical, hands-on course. Any institute offering a distance B.Sc NMT is fraudulent. Period.
- **Unaffiliated / Fake Universities:** Some colleges claim affiliation to unknown 'private universities.' Check UGC's list of fake universities at ugc.gov.in. UP has had multiple fake universities shut down.
- **'Guaranteed Job' Promises:** No legitimate college guarantees a job. Be extremely suspicious of any institution making this promise.
- **Advance Fee for Scholarships:** Legitimate scholarships (NSP, UP Scholarship) are FREE to apply. Never pay anyone to apply for a government scholarship.
- **Fake AERB / NCAHP Recognition Letters:** Always verify directly on aerb.gov.in or the NCAHP portal. Call the regulatory body if in doubt.
- **Exorbitant Capitation Fees:** Private colleges demanding Rs. 5–20 lakhs as 'capitation' or 'donation' are likely operating irregularly. This practice is illegal under most affiliating university rules.

How to Verify an Institution — 10-Point Checklist

1. Go to ugc.ac.in → Approved Institutions → Search by name
2. Check aerb.gov.in → Nuclear Medicine section for historical recognition
3. Check ncahp.gov.in for current NCAHP recognition
4. Visit the institution physically before paying any fees
5. Talk to current students and recent graduates (not just the placement office)
6. Ask for the university affiliation certificate (original, not photocopy)
7. Verify the university affiliation is current — not expired
8. Confirm the institution has a functional nuclear medicine department with gamma camera / PET-CT
9. Do NOT pay brokers or agents for admission assistance
10. Apply directly through official websites only

Rule of Thumb: If an institution is not on the AERB/NCAHP recognised list AND not affiliated to a UGC-approved university, do not enroll regardless of how attractive their brochure looks.

15. Practical Advice for Students from Western UP

As your mentor, here is the most practical, honest guidance tailored specifically for students and families from Western Uttar Pradesh.

Step-by-Step Roadmap

Stage	What to Do
Class 11–12	Study PCB seriously. Aim for 65%+ aggregate. Register for CUET UG in Class 12. Improve English proficiency — it matters for admission and career.
Class 12 (Oct–Dec)	Research institutions. Make a list of 10 target colleges. Check admission calendars. Fill CUET UG application (free / nominal fee).
Class 12 Exams + CUET (Feb–Jun)	Appear for CUET UG. If strong marks, also register for AIIMS BSc AHS entrance. Apply to CMC Vellore (its own application process).
July–August (Admission)	Attend counselling. Do NOT pay any capitation fee. If you secure a govt. seat, immediately apply for UP Scholarship and NSP.
During Course (Year 1–3)	Build clinical exposure actively. Learn computer skills. Improve English. Network with senior technologists. Begin M.Sc entrance prep in Year 3.
Year 4 (Internship)	Try to intern at a major PET-CT centre (Delhi, Mumbai, Lucknow). This dramatically improves job prospects.
After Graduation	First: Appear for AIIMS/PGIMER/SGPGI M.Sc entrance. Second: Join a good private hospital in Delhi-NCR, build 2 years experience, then reappear.
5–8 Years Post-Graduation	With M.Sc + RSO certification + metro experience, you will earn Rs. 70,000–1,20,000/month. Consider Gulf opportunities if interested internationally.

Important Scholarships for UP Students

UP Scholarship (scholarship.up.gov.in): Pre- and post-matric scholarships for OBC/SC/ST/General EWS students from UP. Covers tuition fee and maintenance allowance. Apply every year.

Central Sector Scholarship / NSP (scholarships.gov.in): For students scoring top 20% in Class 12 board. Rs. 12,000 p.a. + Rs. 20,000 p.a. (PG). Income ceiling applies.

PM Yashasvi Scheme: For OBC/EBC/DNT students in professional courses. Check NTA website.

Merit-cum-Means Scholarship (Minority): For minority community students in professional courses. Apply via Ministry of Minority Affairs portal.

BARC / DAE Fellowship: Department of Atomic Energy fellowships for students in nuclear-related programmes. Check barc.gov.in.

Final Mentor's Word: B.Sc Nuclear Medicine Technology is an excellent career choice for a motivated, science-oriented student from Western UP. The challenges are real — relocation, fees at private colleges, modest starting salaries. But by Year 8–10, a well-qualified NMT with M.Sc and RSO certification earns as well as many MBBS doctors — with better work-life balance and growing international opportunities. Invest in a recognised institution. Avoid shortcuts. Apply for every scholarship available. Your degree from AIIMS, JIPMER, or CMC Vellore will open doors across India and abroad. All the best!

This guide was prepared in June 2026 based on information from AERB, NCAHP, university official websites, and career portals. Always verify current fees, seats, and admission dates directly with institutions. Key portals: ugc.ac.in | aerb.gov.in | ncahp.gov.in | scholarship.up.gov.in | scholarships.gov.in