

MENTOR'S GUIDE TO B.Sc. RADIOTHERAPY TECHNOLOGY

A Complete Career Roadmap for Students from Uttar Pradesh & Across India

Covering: Course Details | Institutions | Fees | Admission | Scam Prevention | Salary | International Prospects

Prepared June 2026 | For Students & Parents

MENTOR'S OPENING NOTE

Dear Student and Family,

You are holding a guide written the way a trusted elder in the family would speak — honestly, without selling you anything. Whether you come from a village in eastern UP with a household income of ■20,000/month or from Lucknow's prosperous families, this guide will help you make a clear, informed decision about B.Sc. Radiotherapy Technology.

Radiotherapy Technology is ranked **Tier 1 — #6 out of 35 paramedical courses** for employability. Cancer is India's fastest-growing health crisis. Every cancer patient needs a radiotherapy technologist. **There are not enough trained hands.** That is your opportunity.

This guide answers every question you should be asking before spending money and four years of your life on a course. Read it fully before approaching any college or agent.

SECTION 1 — COURSE AT A GLANCE

What is B.Sc. Radiotherapy Technology?

Radiotherapy (also called Radiation Therapy) is the use of high-energy radiation beams to destroy cancer cells. Radiotherapy Technologists (RTTs) are the trained professionals who operate the machines, position patients precisely, and execute treatment plans designed by oncologists.

Think of the RTT as the pilot of the aircraft — the oncologist is the air traffic controller who plans the route, but the RTT flies the plane (the Linear Accelerator / LINAC) every day.

Quick Facts

Parameter	Details
Full Name	Bachelor of Science in Radiotherapy Technology (B.Sc. RTT)
Duration	3 Years (6 Semesters) + 6 Months Compulsory Clinical Internship
Eligibility	Class 12 (10+2) — Physics, Chemistry, Biology (PCB) — Min 50%
NEET Required?	NO — NEET is NOT required at any institution in India
Fees Range	Government: ₹10,000–₹60,000/year Private: ₹60,000–₹3.5 lakh/year
Starting Salary	₹20,000–₹30,000/month (fresher) ₹40,000–₹80,000+ (experienced)
Regulator	NCAHP (National Commission for Allied and Healthcare Professions)
Key Subjects	Radiation Physics, Human Anatomy, Radiobiology, Dosimetry, LINAC Operation, Oncology
Job Growth	India needs 10x more RTTs — massive national shortage

SECTION 2 — WHY RADIOTHERAPY? THE BIG PICTURE

Cancer in India — The Numbers That Drive Demand

India records approximately 14 lakh new cancer cases every year, and this number is rising sharply. **Over 50% of all cancer patients require radiotherapy** as part of their treatment. Yet India has a severe shortage of trained radiotherapy professionals:

Resource	Required (Ideal)	Available Now	Shortage
LINAC Machines	~1,400+	~700	50% deficit
Radiotherapy Technologists	~25,000+	~8,000–10,000	Massive
Medical Physicists	~5,000	~2,000	Critical

This shortage means: **if you are trained and skilled, you will find work. The question is where and at what salary.** That depends on which institution you attend and what you do after graduation.

Work-Life Balance — Honest Assessment

- Rotational shifts exist in large government hospitals — but 9–5 is common in smaller centres
- No on-call duties like doctors — you leave when your shift ends
- Physically comfortable — you operate machines from a control room, not manual labour
- Emotionally: you work with cancer patients — compassion is required, but this is deeply meaningful work
- No private practice possible — this is a hospital-based profession

SECTION 3 — SEMESTER-WISE SYLLABUS

The curriculum follows NCAHP / university guidelines. Below is a standard outline — your specific university may vary slightly.

Year/Sem	Key Subjects
Year 1 Sem 1 & 2	Human Anatomy & Physiology Biochemistry Physics of Radiation Radiographic Techniques Communication & Computer Skills
Year 2 Sem 3 & 4	Radiobiology Radiation Protection & Safety Pathology & Oncology Clinical Radiotherapy I Dosimetry Fundamentals Radiation Equipment
Year 3 Sem 5 & 6	Treatment Planning Systems Brachytherapy LINAC & Advanced Machines Palliative Care Research Methodology Clinical Radiotherapy II
Internship (6 months)	Full clinical rotation in radiotherapy department — treatment delivery, machine QA, patient positioning, record-keeping

SECTION 4 — GOVERNMENT INSTITUTIONS (RECOMMENDED FIRST)

Government colleges offer the best value: low fees, credible degrees, hospital affiliation, and better employment recognition. Always try for these first.

TIER A — Premier Central Government (Top Priority)

Institution	Location	Approx Fees/Year	Admission Route	Notes
AIIMS New Delhi (Allied Health Sciences)	New Delhi	■1,000–■5,000	AIIMS Paramedical Entrance Exam (AIIMS Allied Health)	Most prestigious; very few seats; highly competitive
PGIMER (Chandigarh)	Chandigarh	■10,000–■20,000	PGIMER Entrance Exam	Excellent clinical exposure; North India benchmark
JIPMER (Puducherry)	Puducherry	■5,000–■15,000	JIPMER Allied Health Entrance	Government of India institute; great for South India
Tata Memorial Centre (TMC, Mumbai)	Mumbai	■10,000–■30,000	TMC Entrance Test / Merit	Largest cancer hospital in Asia; unmatched clinical training
AIIMS Bhubaneswar	Odisha	■5,000–■15,000	AIIMS Allied Health Entrance	New AIIMS; growing rapidly
SGPGI Lucknow (UP — Home State!)	Lucknow, UP	■15,000–■40,000	SGPGI Entrance / State Merit	Excellent for UP students — nearby, reputed, affordable

UP Students — Special Note on SGPGI Lucknow: The Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, is your best government option if you want to stay close to home. It is reputed, affordable, and has strong hospital affiliation. Prioritise this.

TIER B — State Government & Affiliated Medical Colleges

These are government medical colleges with affiliated paramedical programs. Seats are limited; admission is through state-level counselling.

Institution	State	Approx Fees/Year	Notes
Maulana Azad Medical College	Delhi	■5,000–■20,000	Delhi University affiliated; competitive
KGMU (King George's Medical University)	Lucknow, UP	■10,000–■30,000	Key UP govt institution — check allied health seats
BHU (Banaras Hindu University) Institute of Medical Sciences	Varanasi, UP	■10,000–■25,000	Central university; BHU PET entrance exam

Institution	State	Approx Fees/Year	Notes
HIMS Dehradun (Himalayan Institute)	Dehradun, UK	■25,000–■50,000	Deemed; close to UP border
Government Medical College Jammu	Jammu, J&K;	■10,000–■20,000	Good if willing to relocate
NIMHANS Bangalore	Karnataka	■5,000–■15,000	Government; strong research environment
Father Muller Medical College	Mangalore	■30,000–■60,000	Minority institution; semi-private but reputed

SECTION 5 — PRIVATE INSTITUTIONS

Important Guidance: Private college fees are significantly higher (■60,000–■3.5 lakh/year). Only choose a private college if: (a) you did not get a government seat, AND (b) the institution is NAAC accredited + NCAHP/UGC recognised + has a hospital attached. Do not pay high fees for a private college without verifying all three.

Top Reputed Private Institutions

Institution	Location	Annual Fees (Approx)	Why It Stands Out
Christian Medical College (CMC)	Vellore, TN	■40,000–■80,000	Among India's finest; semi-private; excellent clinical training; globally recognised
Manipal Academy of Higher Education (MAHE)	Manipal, Karnataka	■1.5–■2.5 lakh	Top-ranked private university; MET entrance; strong placements
Amrita Vishwa Vidyapeetham	Kochi / Coimbatore	■80,000–■1.5 lakh	Pioneer in Radiotherapy education; excellent faculty & equipment
SRM Institute of Science & Technology	Chennai	■80,000–■1.2 lakh	NAAC A++; good hospital affiliation; campus placement
Kasturba Medical College (Mangalore / Manipal)	Mangalore / Manipal	■1–■1.5 lakh	Part of Manipal group; strong clinical exposure
Max Institute of Allied & Paramedical Education (MIAPE)	Ghaziabad, UP	■1.25 lakh	Close to UP; practical choice for UP students who miss govt seats
NITTE (Deemed to be University)	Mangalore	■80,000–■1.2 lakh	NAAC A; good South India option
Sri Ramachandra Institute	Chennai	■1–■2 lakh	Deemed university; attached 1,800-bed hospital
BLDE University	Vijayapura, Karnataka	■60,000–■1 lakh	Reasonable fees; Karnataka option
Apollo Institute of Allied Health Sciences	Hyderabad	■1–■1.8 lakh	Apollo hospital affiliation; good placements

Guidance for UP Families by Income Level

Family Income	Recommended Path	Scholarships to Apply For
Below ■2.5 lakh/year (Marginal Rural)	Target AIIMS/PGIMER/SGPGI/BHU through entrance exams. Fees will be ■10,000–30,000/year. Hostel accommodation available. This IS achievable with preparation.	PM CARES Education, NSP (National Scholarship Portal), UP Scholarship Portal, SC/ST/OBC reservations

Family Income	Recommended Path	Scholarships to Apply For
■2.5–8 lakh/year (Lower Middle Class)	Government first — try SGPGI, BHU, KGMU. If missed, consider CMC Vellore or MIAPE Ghaziabad (UP). Education loan from SBI/PNB at 8.5% interest.	NSP scholarships, Central Sector Scheme, Bank education loan (up to ■4 lakh without collateral)
■8–20 lakh/year (Middle Class)	Government institutions preferred. If not, Manipal / Amrita / SRM are solid choices. Budget ■8–12 lakh total for 3 years all-inclusive.	Merit scholarships at private universities; Education loan available easily
Above ■20 lakh/year (Well-to-do)	All options open. Consider Manipal, Amrita, CMC. Budget ■15–25 lakh for 3 years. Plan MSc / international certification from Year 2.	Merit-based discounts; focus on best college not cheapest

SECTION 6 — ADMISSION ROADMAP (STEP BY STEP)

Eligibility Summary

- Class 12 (10+2) with Physics, Chemistry, Biology (PCB)
- Minimum 50% aggregate (some colleges require 55%)
- NEET is NOT required — this is an Allied Health Science, not MBBS
- No age restriction in most institutions
- English medium preferred — most clinical training is in English

Key Entrance Exams — Government Seats

Exam	Institution(s)	When to Apply	Mode
AIIMS Allied Health Paramedical Entrance	All AIIMS campuses	March–April (for July admission)	CBT Online
PGIMER Chandigarh Entrance	PGIMER Chandigarh	March–May	CBT Online
JIPMER Allied Health Entrance	JIPMER Puducherry	April–May	CBT Online
BHU PET (Banaras Hindu University)	BHU Varanasi	February–March	CBT Online
SGPGI Entrance / UP State Merit (DMET)	SGPGI + UP Govt Colleges	June–July	Written + Merit
TMC Mumbai Entrance Test	Tata Memorial Centre	April–May	Written Exam
KGMU Lucknow	KGMU UP	State merit / entrance	Merit/Entrance
MET (Manipal Entrance)	Manipal University (Private)	Jan–April	CBT Online
SRMJEEE / SRMEEE	SRM University (Private)	Jan–March	CBT Online

12-Month Preparation Timeline for UP Students

If you are in Class 11 right now, this is your plan:

Phase	Action
Class 11 (Now)	Focus on PCB — target 70%+ in Class 12 boards. Register on NSP (scholarships). Shortlist 6 target colleges.
Class 12 (Jan–Feb)	Download AIIMS / BHU / PGIMER prospectus. Fill scholarship forms on UP portal. Start entrance prep.
Class 12 Boards (Feb–March)	Appear in boards. Score 60%+ for broad options. Apply to all entrance exams simultaneously.

Phase	Action
April–June	Appear in AIIMS/BHU/PGIMER/SGPGI/JIPMER entrance exams. Apply to private colleges as backup.
July–August	Counselling rounds. Accept best seat offered. Do NOT reject a government seat without a clear plan.
After Admission	Join; focus on clinical skills from Year 1; begin international exam research from Year 2.

SECTION 7 — SCAM PREVENTION GUIDE (READ BEFORE PAYING ANYONE)

Warning: The paramedical sector is targeted by scammers because families are desperate, amounts are large, and oversight was weak until recently. An investigation (Careers360, June 2025) found that across India, private bodies with official-sounding names like "All India Council for Paramedical Health Faculty" are illegally affiliating institutes — including many in Uttar Pradesh.

Uttar Pradesh has NOT yet constituted an official State Allied and Healthcare Council under NCAHP Act 2021 (as of 2025). UP uses the **"UP State Medical Faculty"** — verify any UP college through this body.

8 Scam Types to Recognise

Scam Type	What They Say / Do	Red Flag Signal
Fake College (Physical)	Has a building, brochure, even a hospital logo. No actual hospital affiliation. Gives "degree" unrecognised by employers.	No NAAC rating, not on UGC website, "university" they are affiliated to is unheard of
Fake "Council" Affiliation	Says "Affiliated to All India Paramedical Council / AICTE / NMC" — none of these regulate paramedical courses. NCAHP is the only valid body.	If affiliation body is not NCAHP or a recognised University, walk away
Distance / Online Degree Fraud	Offers B.Sc. Radiotherapy by distance / online mode with no clinical training. Impossible — you cannot learn to operate a LINAC online.	Any Radiotherapy degree by distance mode is FAKE. Period.
Diploma Sold as Degree	Sells a 1-year Diploma but markets it as equivalent to B.Sc. It is NOT. Employers and hospitals reject it.	Check if it says "Degree" (3–4 years) vs "Diploma" (1–2 years)
Agent / Seat Scam	"Pay ₹50,000 now and I will get you a seat at AIIMS." AIIMS does not use agents — ever. No government college does.	Any agent asking for cash/transfer to "secure" a government seat is a fraudster
Management Quota Inflation	Private college charges ₹8–10 lakh as "management quota donation" which is not refundable. Seats may not even exist.	Never pay more than published fees without written receipt on college letterhead
Fake Hospital Affiliation	Shows MOU with a hospital but no actual clinical training happens there. You graduate with no hands-on experience.	Visit the hospital listed — ask to see students actually working there
WhatsApp Agent Scam	Random WhatsApp contact offering guaranteed admission to a top college for a fee transferred online.	Delete immediately. Never transfer money to an individual for college admission

How to Verify ANY College — Step by Step

✓ **Step 1: Check UGC website ([ugc.gov.in](https://www.ugc.gov.in)) → "University List" → search the university the college claims affiliation to**

- ✓ Step 2: Check NCAHP website (ncahp.gov.in) → search the institution name
- ✓ Step 3: For UP colleges → check UP State Medical Faculty (upsmfac.gov.in) approved institute list
- ✓ Step 4: Check NAAC accreditation (naac.gov.in) → "Know your college" → enter institution name
- ✓ Step 5: Call the Hospital the college claims affiliation to → ask if their college students actually rotate there
- ✓ Step 6: Search "[College Name] review scam complaints" on Google — real reviews exist
- ✓ Step 7: Never pay BEFORE visiting campus physically. If you cannot visit, do not pay.

■ **ABSOLUTE RULE:** No government college in India charges capitation fee or uses agents for admission. AIIMS, BHU, SGPGI, PGIMER — all admissions are ONLY through official entrance exams.

SECTION 8 — CAREER PATHS & SALARY GUIDE

Job Roles After B.Sc. Radiotherapy Technology

Job Role	Where You Work	Fresher Salary	Experienced Salary
Radiotherapy Technologist (RTT / RTT Senior)	Cancer hospitals, AIIMS, TMC, Apollo, Fortis	■20,000–■30,000/mo	■50,000–■1 lakh/mo
LINAC Operator / Treatment Technologist	All major hospitals with radiotherapy dept	■18,000–■28,000/mo	■40,000–■80,000/mo
Dosimetrist (after training/MSc)	Large cancer centres, AIIMS, TMC	■35,000–■50,000/mo	■80,000–■2 lakh/mo
Radiation Safety Officer	Hospitals, AERB, nuclear plants	■30,000–■45,000/mo	■70,000–■1.2 lakh/mo
Medical Physicist (after MSc Medical Physics)	AIIMS, private hospitals	■50,000–■80,000/mo	■1.5–■3 lakh/mo
Lecturer / Faculty (after MSc + experience)	Medical / paramedical colleges	■30,000–■50,000/mo	■60,000–■1.2 lakh/mo
Government RTT (ESIC / Railway / Defence)	Central Govt Hospitals	■35,000–■45,000/mo (7th Pay)	Grade pay + increments + pension

Top Recruiters in India

- Government: AIIMS (all campuses), Tata Memorial Centre, PGIMER, SGPGI, ESIC, Railway Hospitals, Armed Forces Medical Services, NCI Jhajjar
- Private: Apollo Hospitals, Fortis Healthcare, Narayana Hrudayalaya, Manipal Hospitals, Max Healthcare, HCG Oncology, Medanta, Aster Medcity
- Cancer-Specific Chains: HCG (Healthcare Global — 40+ cancer centres), American Oncology Institute, Omega Hospitals

Career Progression Ladder

This is what your career can look like over 15 years if you plan well:

Years	Stage	Approx Salary
0–2 years	Fresher RTT — treatment delivery, machine operation, patient care	■20,000–■30,000/mo
2–5 years	Senior RTT / Team Lead — manage junior staff, complex treatment plans	■35,000–■55,000/mo
5–8 years (with MSc)	Dosimetrist or Senior Dosimetrist — treatment planning system work	■60,000–■1 lakh/mo

Years	Stage	Approx Salary
8–12 years	Chief RTT / Radiotherapy In-charge at major hospital	■80,000–■1.5 lakh/mo
12–15 years (international)	Therapeutic Radiographer (UK NHS) or RTT (USA/Australia)	■2.5–■5 lakh/mo equivalent
Any point (academia)	Lecturer → Assistant Prof → Associate Prof (with MSc + PhD)	■60,000–■1.5 lakh/mo

SECTION 9 — INTERNATIONAL CAREER PATHWAYS

Radiotherapy is one of the few paramedical fields with a **clear, structured international pathway**. Unlike some other courses, the clinical skills are universally recognised. Here is your roadmap abroad:

USA — ARRT Certification Pathway

- After B.Sc. + 2–3 years experience, prepare for the ARRT (American Registry of Radiologic Technologists) — Radiation Therapy certification exam
- ARRT-certified RTTs in USA earn USD 60,000–90,000/year (■50–75 lakh at current rates)
- Route: India BSc → MSc/experience → ARRT exam → EB-3 work visa (skilled worker)
- Best for: students from Manipal, Amrita, CMC — whose degrees have US recognition

UK — NHS Therapeutic Radiographer Pathway

- Register with HCPC (Health and Care Professions Council) — needs skill assessment + IELTS 7.0+
- UK NHS salary for Therapeutic Radiographers: GBP 28,000–45,000/year (■30–48 lakh equivalent)
- Band 5 entry → Band 7 Senior within 5–7 years (GBP 43,000–50,000)
- Route: India BSc → 2 years experience → HCPC registration → Skilled Worker visa
- Best institutions recognised: AIIMS, TMC, PGIMER, Manipal, CMC Vellore

Australia & New Zealand — Radiation Therapist

- Medical Radiation Practice Board of Australia (MRPBA) recognition required
- Australia salary: AUD 70,000–95,000/year (■38–52 lakh)
- NZ has strong demand — Nursing/Allied Health skilled migrant visa pathway
- Australia: 482 Temporary Skill Shortage visa → PR pathway

Middle East (Gulf) — High Demand, Fast Track

- UAE, Saudi Arabia, Qatar, Kuwait — all have booming cancer centre infrastructure
- No additional licensing exam usually required — degree + experience sufficient
- Salary: SAR 8,000–15,000/month (■1.8–3.4 lakh/month) — tax free
- BEST SHORT-TERM OPTION: 2–3 years India experience → Gulf → build savings for USA/UK

Canada

- Canadian Association of Medical Radiation Technologists (CAMRT) certification needed
- Express Entry + Provincial Nominee Program (PNP) — healthcare workers get priority
- Salary: CAD 60,000–80,000/year (■37–50 lakh)

International Pathway — Decision Chart by Family Income

Background	Recommended International Path	Timeline from Graduation
Government college graduate (AIIMS/TMC/PGIMER)	UK HCPC → NHS directly OR USA ARRT (degree most recognised)	2–3 years after graduation

Background	Recommended International Path	Timeline from Graduation
Private college graduate (Manipal/Amrita/CMC)	Gulf first (build experience + savings) → then UK/Australia	1–2 years after graduation → Gulf; 4–5 years → West
Any graduate wanting quickest abroad move	Gulf countries — UAE/Saudi → fastest, no exam, tax-free	6 months–1 year after graduation
Strong academic + research interest	MSc Medical Physics in UK/Australia → Physicist career abroad (■3–8 lakh/month equivalent)	2 years MSc + 1 year registration

Language Preparation: Start IELTS preparation from Year 2 of your BSc. Target 7.0+ Academic IELTS. This is your passport to the UK, Australia, and Canada. Do not wait until after graduation.

SECTION 10 — HIGHER EDUCATION AFTER B.Sc.

Postgraduate Options in India

Course	Duration	Where	Why Do It
M.Sc. Radiotherapy / Radiation Oncology Technology	2 years	AIIMS, PGIMER, Amrita, Manipal	Doubles salary; required for Dosimetrist / Faculty role
M.Sc. Medical Physics (AERB recognised)	2 years	BARC Mumbai, AIIMS, Manipal, VIT	Highest earning postgrad option — ■1–3 lakh/mo possible
M.Sc. Medical Imaging Technology	2 years	Manipal, SRM, private	Broadens into radiology — more job options
MBA Healthcare Management	2 years	IIHMR, TISS, Symbiosis	Move into hospital management; ■8–15 lakh starting
Ph.D. / Research	3–5 years	AIIMS, BARC, universities	Academic / research career — niche but prestigious

Mentor's Recommendation: If you get into a government institution (AIIMS/PGIMER/TMC), plan for M.Sc. Medical Physics after 2 years of work experience. This is the highest-ROI postgraduate path in the entire radiotherapy field. Medical Physicists are critically short in India and abroad.

SECTION 11 — MENTOR'S FINAL GUIDANCE

Decision Framework — Choosing Your College

- **First priority: Entrance exam preparation → Government seat → AIIMS / SGPGI / BHU / PGIMER**
- Second priority: CMC Vellore or Manipal / Amrita — if you can afford ■1–1.5 lakh/year
- Third priority: Any NAAC-accredited private college with verified hospital affiliation
- **Never: Distance mode, fake council affiliation, or any college you cannot verify on NCAHP/UGC**

For Families in Rural UP with Marginal Income

The government seat route is REAL and ACHIEVABLE. Class 12 PCB with 65%+ and a dedicated 3-month entrance exam preparation can get you into SGPGI, BHU, or KGMU at fees less than ■30,000 per year. Use NSP and UP Government scholarships to cover this. Many students from Gorakhpur, Allahabad, Meerut, and Varanasi have done exactly this.

If government seat is missed: Apply for SBI Student Loan (■4 lakh without collateral, ■7.5 lakh with collateral) and join a verified private college. At ■2.5–3 lakh total loan repaid over 7 years = EMI ■3,500–4,000/month. Your fresher salary of ■20,000/month covers this comfortably.

The Honest Summary

- ✓ **B.Sc. Radiotherapy Technology is one of the most secure paramedical choices in India today**
- ✓ **Cancer will not disappear — demand for RTTs will only grow**
- ✓ **Government colleges make it affordable even for rural UP families**

✓ International pathway to UK/Gulf/USA is clear and achievable with planning

✓ No NEET required — pure merit + entrance exam

■ Scam risk is high in UP and across India — verify every college before paying anything

■ Avoid distance mode, fake councils, and any agent promising guaranteed admission

Official Verification Portals:

- NCAHP: ncahp.gov.in
- UGC Fake University List: ugc.gov.in/page/Fake-Universities
- NAAC Accreditation: naac.gov.in
- UP State Medical Faculty: upsmfac.gov.in
- National Scholarship Portal: scholarships.gov.in
- AIIMS Paramedical Entrance: aiimsexams.ac.in
- PGIMER Chandigarh: pgimer.edu.in

This guide was prepared as mentorship support for students and families making paramedical career decisions. Always cross-verify institutional details directly with the college and official regulatory bodies before making financial commitments. Information is current as of June 2026.