

Thus the following curriculum aims to focus on skills and competencies based approach for learning and is designed accordingly. The curriculum is prescriptive and is designed with an aim to standardize the content across the nation.

Course duration

It is recommended that any programme developed from this curriculum should have a minimum of the following duration to qualify as an entry level professional in Medical Radiology and Imaging Technology.

- **4 year programme (including 1 year of clinical training /internship)- Bachelor's degree level**
- **2 year programme – Master's level**

The emphasis during the initial year should be on the academic content establishing a strong scientific basis and engagement with the course principles. During the second and third years of training, emphasis should be laid on process to refine the acquired theoretical knowledge and its application to clinical/reflective practice. In Bachelor degree programme minimum one year should be devoted to clinical practice and this should be on a continuum of rotation from theory to practice over the programme. The aim of the 4 year degree programme is to enable the development of the medical radiology and imaging technologist as a key member of the multidisciplinary team and to enable him/her to execute advanced preparation/ planning/delivery as well as quality assurance.

With the change in the disease dynamics and multifold increase in the cases needing diagnostic medical imaging and evaluation, it is imperative that a well-structured programme of postgraduate education is also encouraged so as to enhance research capacity within the country to widen the scope of clinical practice for the profession. **Thus, a master's degree programme is recommended with minimum of two years of education in specialized field of Medical Radiology and Imaging Technology.** The post graduate students can contribute significantly in research and academics.

PhD also play a significant role in the academic system, research and innovation.

However as per ICAHP Committee - 3 (Minimum Standards and Procedures for Award of Ph.D. Degree in MRIT in the related special fields) to be followed as per UGC Guidelines has also been incorporated in this curriculum

Teaching faculty and infrastructure (minimum standard to start the programmes)

One of the important recommendation of the task force members should be associated with the state medical colleges whereby they can make use of the available patient load and medical infrastructure as a part of their training curriculum (May be through MOU).

- Standalone institutions must have an MoU with either a medical college or hospital or healthcare facility as per the guidelines (desired number of Radiology equipment/beds/OPD etc.) defined in the curriculum to
- ensure practical exposure to the students.
- The MOU must be done with either a medical college or hospital or healthcare facility having minimum of 100 investigation per day includes of x-rays, Radiological imaging procedures, CT and MRI includes advance imaging techniques.
- MoU to also define the radiology clinical supervision of the students –institutional staff or clinical preceptors can be considered.

For the institutes to be capable of providing high quality training to the student and exposure to all the related modalities, it should have the following:^{xxiii}

- Conventional X-ray Unit for routine X-ray and IVU
- Mobile X-ray unit
- Fluoroscopic unit
- Ultrasonography, Color Doppler Equipment
- Multi-slice C.T. Scan,
- Mammography
- MRI
- DSA(preferably)

The teaching faculty for the department should have a minimum of (for the 20 intake)

- 1 Professor
- 1 Assoc. Professor
- 3 Asst. Professor
- 2 demonstrators

Method of teaching and learning-

- Lecture
- Tutorial
- Problem based learning
- Small group teaching and learning
- Continuous interactive learning
- Case-based
- Project based
- Research project- Research was considered by the group to be very important in order to keep pace with other professions and to generate a research background for our own profession.
- Seminars
- Clinical conferences
- E-learning
- Skills laboratory

Job availability-

Diagnostic radiography is a fast-moving and continually changing profession, and long-term career prospects include: management, research, clinical work, teaching etc.

Employment opportunities available in a variety of settings in both rural and urban areas include:

- More generalized practice in medium to small hospitals;
- Specialized clinical practice in large academic medical hospitals and trauma centers,
- Clinics and free-standing imaging centers which may offer both special and general practice opportunities; or
- Clinical practice coupled with expanded responsibilities in quality control, education, data management and supervision, particularly in large hospitals.
- Research Scholar/ Research Assistant