



# **MGM INSTITUTE OF HEALTH SCIENCES**

(Deemed to be University u/s 3 of UGC Act, 1956)

**Grade 'A' Accredited by NAAC**

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## **Curriculum for Fellowship in CT MRI (with effect from 2018-19 Batches)**

Approved as per BOM - 53/2018, Dated 19/05/2018

## **Amended History**

1. Approved as per BOM - 53/2018, [Resolution No.4.8], Dated 19/05/2018.

**MGM INSTITUTE OF HEALTH SCIENCES**  
**FORMATION FOR SUBMISSION OF PROPOSAL / FELLOWSHIP COURSE**

1. Title of the Fellowship: MGM CT MRI fellowship
2. Duration of the Fellowship : 1 year ( 12 month)
3. **Commencement ( 2batches ):** a) 1<sup>st</sup> June, 2018 b) 1<sup>st</sup> December, 2018.
4. **Objectives of the Fellowship:** to cover all aspects of imaging involving CT scan and MRI, including guided procedures.
5. **Eligibility criteria for admission:** Post-Graduate in Radio-diagnosis and imaging (MD/DMRE/DMRD/DNB)
6. **Intake capacity in each batch:** 5 to 10.
7. **Admission / selection process/ procedure:** as decided by MGM University.
8. **Fees:** 6 Lac per fellow per year to begin with
9. **Course content:** theory sessions , reporting and film reading sessions, on the job training with guided procedures, self-study, daily log book maintenance with details of cases and procedures one National and one International paper Resentation/publication or audit report each in the year
10. **Teaching scheme:** Jic will ensure that there are at least 8 sessions of 2 hours each per month, conducted by a senior radiologist (at least 5 years post qualification) with no less than 1 session per week. Dr. Bhavin Jankharia will take additionally 6 sessions per year of 2 hours each the students will attend reading sessions of consultants within Jic's premises, by rotation, as decided by the HOD radiology, MGM. the students will attend procedures conducted by Jic's consultants on its premises, by rotation, as decided by the HOD Radiology, MGM. The students will get hands-on experience for procedures under supervision; only in the department of radiology, MGM and carry out supervised procedures only, until deemed fit to work independently.
11. **Complete curriculum of the course:** as per annexure
12. **Text book & reference books:** list attached
13. **Scheme of Examination ( in detail)(pattern of Exam / passing criteria award of Fellowship):** there will be a theory exam twice a year based on the curriculum. every quarter, the performance of the candidates will also be audited to ensure they have understood the curriculum and carried out the objectives.
14. **Infrastructure required for conducting the course & its availability in the college / hospital-** 16 slice ct and 1.5tesla MRI
15. **Faculty required ( with qualification ) for conducting the course. – Eminent radiologist, Dr Bhavin Jankharia, MD, DMRD, MBBS ,with his team ("picture this by Jankharia")**

# MGM CT and MRI Fellowship Syllabus

## I. Selection Criteria

Based on the number of candidates available, the selection will either be based their CVs or will be based on the results of an exam followed by an interview.

## II. Syllabus

The topics mentioned will be covered by faculty with

- a. Didactic lectures
- b. Case based teaching sessions

### A. Modalities Covered

- i. CT
- ii. MRI
- iii. Guided interventions

#### *For each modality*

- a. Basic physics
- b. Applied physics - to understand how the physical principles are to be applied to get good quality images, e.g. metal imaging in CT and MRI, iron quantification, etc.
- c. Practice issues related to radiation, appropriate contrast media usage, imaging in Pregnancy, etc

### B. Organ Systems

- i. Neuroradiology
- ii. Head & Neck
- iii. Chest
- iv. Cardiac
- v. Abdomen, including hepatobiliary, pancreas, genitourinary, bowel, retroperitoneum, etc
- vi. Pelvis, including uterus, ovaries, prostate
- vii. Vascular
- viii. Musculoskeletal including spine and rheumatology
- ix. Breast

#### *In each organ, the following will be covered*

- a. Anatomy
- b. Pathology ranging from congenital to trauma, infection, neoplasm and organ specific conditions
- c. Appropriateness criteria, including clinical workflows needed for radiology decision making

## III. Research and Teaching Initiatives

Each fellow will have to do the following

- a. Write at least one paper for publication in a recognised peer-reviewed journal
- b. Send at least one abstract to a recognised national or international radiology conference
- c. Present 4 times in internal radiology meetings, including one journal club
- d. Take 4 teaching sessions for residents
- e. Maintain a log book to document they have seen 300 cases and reported under mentorship 150

Hence there will be weekly case presentation and journal club meetings presided over by expert faculty.

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#### IV. Books

- a. High resolution CT of lungs - Webb, Mueller, Naidich
- b. Diagnostic radiology - Grainger, Allison
- c. Diagnostic abdominal imaging - Wallace, Miller
- d. Musculoskeletal imaging, either Stoller or Resnick
- e. Lippincott core review series including cardiac, breast, gastrointestinal and genitourinary
- f. Any other books found useful or necessary during the duration of the course.

#### V. Journals

- a. Radiology
- b. American Journal of Roentgenology
- c. Radiographics
- d. European Radiology
- e. Radiology Clinics of North America
- f. Current journal articles of interest from other specialty journals

Reading journals and staying current with state of the art concepts will be given more importance than book reading.

#### VI. Evaluation

This will be done by a credit system

Each fellow has to accumulate at least 250 credits

- a. For each 2 cases seen and 1 case reported under mentorship - 1 credit
- b. For each presentation in a meeting or journal club - 10 credits
- c. For each article written and submitted to a journal - 20 credits
- d. For each article accepted by a journal during this period - 30 credits
- e. For each abstract submitted to a national or international conference - 20 credits
- f. For each abstract accepted by a national or international conference during the year - 30 credits
- g. Year-end examination (combination of orals, MCQs, etc) - maximum of 50 credits



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