



**PRAVARA INSTITUTE OF MEDICAL SCIENCES
(DEEMED TO BE UNIVERSITY)**

Loni, Tal. Rahata, Dist. Ahmednagar 413736

NAAC Re-accredited with 'A' Grade

SYLLABUS

**Post Doctoral Fellowship in Women's Imaging (Dept. of Radiodiagnosis)
(Academic Council Meeting Dated 25th August, 2022)**

TOPIC

Fellowship in Women's Imaging

INTRODUCTION & OBJECTIVE

Awarded by: Pravara Institute Of Medical Sciences (DU) (accredited by NAAC with 'A' GRADE)

1. A 1 year comprehensive and well-balanced training program encompassing all of the basic and advanced clinical areas of women's imaging.
2. Training in breast, gynecologic and obstetrical imaging.
3. Modular Fellowship course format.
4. Obstetrical imaging training includes performing and interpreting high risk OB ultrasound in our perinatal center, run in conjunction with the obstetrics department, and exposure to fetal MR.
5. The fellow will be involved with all aspects of breast imaging and procedures including including mammography, ultrasound, breast MRI, ductography, breast biopsy, and wire localizations.
6. Gynecologic training includes MR interpretation, hands on endovaginal scanning and learning how to catheterize the uterus for fluoroscopic and sonographic evaluation of the endometrium and fallopian tubes.
7. The fellow receives "hands-on" experience at the workstation as well as through active procedure services with image-guided aspirations and biopsies.
8. Fellows fully participate in all aspects of clinical services, with frequent contact with our referring physicians; will work side by side with nationally acclaimed academic radiologists, and will interact with renowned clinicians.
9. Fellows will be given an opportunity to conduct at least one **original research study** during the course duration.

DURATION OF COURSE

1 year

ELIGIBILITY

- Applicant possesses either a degree or diploma/DNB qualification in Radiodiagnosis.
- Applicant is registered with Maharashtra/State Medical Council/MCI and possesses additional qualification registration certificate or has applied for the same.

INTAKE CAPACITY

Three (3) Students per Academic year

FEE STRUCTURE

The candidate will be asked to pay Rs.1,50,000/- by Demand draft in favor of Pravara Institute of Medical Sciences, with prescribed application form at the time of admission towards the Fellowship in Diagnostic Neuro-Radiology. They will be paid salary/stipend as per the pay scale of senior Resident Rs. 80,000/-

COURSE CONTENT / TOPICS / LEARNING METHODS

Obstetric Imaging

Module - 1

1. Introduction to the course
2. Pre-training assessment
3. Early pregnancy scan
4. First trimester screening for aneuploidy
5. Fetal structural anomalies in First trimester
6. Fetal biometry and assigning gestational age
7. Guidelines for second trimester scan and normal views
8. Fetal thorax
9. Fetal neck and face
10. Fetal cardiovascular system.
11. Embryoreduction
12. Amniocentesis
13. Umbilical cord sampling

Module - 2

1. Fetal GIT
2. Fetal GUT
3. Fetal skeletal system
4. Fetal heart and fetal Echocardiography
5. Fetal CNS and fetal Neurosonography
6. Fetal aortic arch anomalies.
7. Pre eclampsia screening including ophthalmic artery doppler.
8. Fetal venous anomalies

Module - 3

1. Fetal environment
2. Fetal growth abnormalities
3. Third trimester scan - what all to look for.
4. Obstetric color Doppler

5. Multiple pregnancies
6. 3D-4D ultrasound in Obstetrics.
7. Fetal MRI
8. Lower uterine scar- Pre and post-natal assessment

Module - 4

1. Fetal infections
2. Genetics
3. Fetal Interventions
4. Recent advances
5. USG evaluation of other medical and surgical problems in pregnancy
6. Post-training assessment.
7. Fetal growth restriction: approach and guidelines.
8. Radiological evaluation of Placental pathologies.

Non-obstetric imaging

Module - 5

- Imaging in gynecological infertility
- Imaging in gynecological masses and tumors
- Imaging in ectopic pregnancies
- Hysterosalpingography for uterine malformations
- Hysterosalpingography for infertility and tubal patency
- Breast biopsy.
- Tomosynthesis.
- Elastography.
- Hysterosonography.

Module - 6

- Breast imaging by mammography
- Breast imaging by USG breast
- Breast imaging by MR mammography.
- Follicular study.
- Endometrial Doppler.

AVAILABLE MACHINES AND EQUIPMENTS

- PHILIPS Ingenia Elition 3.0 T MRI
- 128 Slice CT Scan with Syngovia Software and CO2 Insufflators for virtual imaging
- 10 color Doppler machines of Toshiba, Philips and Mindray
- Digital X-ray with IITV
- PACS
- Updated Central & Departmental Library with Latest Books, Journals & Reading Hall
- Film Library with All types of Cases in films and CD's
- Well Equipped seminar room with AV aids and LCD projector

PROJECT WORK

Seminar presentation

Case Presentation

Journal Club

Paper presentation:- The candidate will be encouraged to attend conferences and workshops and to present as many papers at these conferences.

Publications:- All facilities will be given to acquire and record data to send articles for publications in journals of national and international repute. Each candidate will be encouraged to send in at least one article for publication in a certificate course.

LOG BOOK

Student will have to maintain a log book

SCHEME OF EXAMINATION

Evaluation:-

Term end examination will be arranged and conducted by Dept. of Radiodiagnosis, Dr. Balasaheb Vikhe Patil Rural Medical College and declare the result.

Examination Scheme

Paper – I: Post Doctoral Fellowship in Women's Imaging – I

Paper – II: Recent advances in Post Doctoral Fellowship in Women's Imaging

Theory Examination:- (2 Paper of 100 marks each)

2 LAQ x 20 Marks = 40 Marks

6 SAQ x 10 Marks = 60 Marks

Practical Examination:-

One Long Case / Long experiments = 50 Marks

Three Short Cases (3 x 30) = 90 Marks

Viva Voce / Oral / OSPE / Spottes = 60 Marks

Minimum Passing:-

- i) Minimum 50% in Theory papers (Each paper minimum is 40%)
- ii) Minimum 50% in Practical /Clinical & Viva Voce
- iii) Overall 50% Theory & Practical/Clinical

Award of class:-

50% to 59.5% = IInd class

60 to 74.5% = Ist Class

Above 75% = Ist Class with Distinction

Attempts:-

- A student shall clear the Examination only within three attempts or within 4 years of admission.
- Result / Issue of Mark Sheet – Head of Institute & HOD will jointly issue the Mark Sheet.

Certification:-

- A) Title - Post Doctoral Fellowship in Women's Imaging.
- B) A fellowship is awarded upon successful completion of the prescribed study program, which will state that i) Candidate has completed the prescribed course of Post Doctoral Fellowship in Women's Imaging, ii) Candidate has completed prescribed clinical experience. iii) Candidate has passed the prescribed examination.
- C) Certificate will be issued with the signatures of concern Dean, Dr. Balasaheb Vikhe Patil Rural Medical College & Vice-Chancellor, Pravara Institute of Medical Sciences (Deemed to be University).
- D) Certificates to be prepared by concern College.

COURSE COMMENCES

1st September

REFERENCE FOR THE BOOK

Books (latest edition)

- 1. Grainger & Allison's Text book of Diagnostic Radiology (Churchill Livingstone)
- 2. Textbook of Gastrointestinal Radiology- Gore and Levine (Saunders)
- 3. MRI of Brain and Spine - Scott Atlas (LWW)
- 4. Diagnosis of Diseases of the Chest -Fraser
- 5. Diagnostic Imaging Series: (Amirsys, Elsevier)
Abdominal Imaging, Orthopedics, Head and Neck, Neuroradiology, Pediatric Radiology Chest, Obstetrics, Breast
- 6. MRI in Orthopedics and Sport Injuries - Stoller
- 7. Skeletal Radiology - Greenspan
- 8. Abdominal-Pelvic MRI - Semelka (IWW)
- 9. Caffey's Pediatric Radiology
- 10. CTI and MRI of the whole body- John R. Haaga
- 11. Text Book of Radiology and imaging - Davodsulton
- 12. Diagnostic ultrasound - Carol C. Rumack
- 13. AIIMS-MAMC-PGI's Comprehensive Textbook of Diagnostic Radiology, Volumes 1, 2, 3

Journals

- 1. American Journal of Roentgenology
- 2. Radiology
- 3. Seminars in Ultrasound, CT, MRI
- 4. Radiographics
- 5. Clinical Radiology
- 6. British Journal of Radiology
- 7. Radiological Clinics of North America
- 8. Pediatric Radiology
- 9. Australasian Radiology
- 10. Journal of Computerized Axial Tomography
- 11. Clinical Imaging
- 12. MR Clinics of North America
- 13. Seminars in Roentgenology

Pravara Institute of Medical Sciences
Deemed University (DU),Loni
Department of Radiodiagnosis, Rural Medical College

At Po-Loni,Tal-Rahata,Dist-Ahmednagar,413736

APPLICATION FORM FOR ADMISSION TO FELLOWSHIPPROGRAMME

RECENT
PASSPORTSIZE
PHOTOGRAPH

I desire to take admission for the Fellowship Program in _____
at Pravara Institute of Medical Sciences Loni. I hereby apply for the same. If permitted to
join the course, I shall abide by all the rules and regulations of the University. I hereby
furnish my Bio-data.

Date of Application _____ Date of Receipt _____

(By Office) Signature of Applicant

1. Name(in capitals) : _____
(Surname) (First Name) (Middle Name)
2. Father's Name : _____
3. Mother's Name : _____
4. Age : _____ Gender: _____
5. Date of Birth : _____
6. Postal Address for Correspondence _____
7. Telephone No. (with area code) _____ Mobile No. : _____
8. E-mail ID : _____
9. Nationality : _____

10. Educational Qualification:

EXAM	MONTH AND YEAR OF PASSING	NAME OF UNIVERSITY	% MARKS OBTAINED
M.B.B.S			
M.D			
DMRE			
OTHERS			

Registration No. : _____

Name of State Medical Council: _____

Country : _____

City : _____

A-State/National/International Conference Attended:

Year	Place	State/National/International

B-Papers Presented as first author at State/National/International Conference:

Year	Place	Title

C- Papers Published in any recognized Journal /chapters in textbook/articles :

Name of the Publication	Year	Vol. No.	Page No.	Title of the Paper/chapter/article

To be filled by the University Office

Serial No. _____ Date when applicant & payment received _____

Amount Rs. _____ by cash/cheque/Draft _____

Receipt No. _____ Date _____

Date when application is approved _____

Remarks _____

Manager Accounts PIMS

DECLARATION:

I hereby agree that I will abide by the rules and regulations at present in force or that may hereafter be made for the administration of Pravara Institute of Medical Sciences Deemed University (DU), Loni and undertake that so long as I am a fellow / certificate course student of the university, I will do nothing unworthy of the student of the university either inside or outside or anything that will interfere with its orderly working and discipline. I also declare that the information particulars furnished above by me are true to the best of my knowledge. I know the consequences as provided in the rules of PIMS with regard to furnishing false information/concealing any information.

Date: __

Signature of Applicant




Registrar
Pravara Institute of Medical Sciences
(Deemed to be University)
Loni-413736, Tal Rahata, Dist. Ahmednagar
(M.S. India)