



**CENTER FOR ALLIED HEALTH EDUCATION**

*SCHOOL OF DIAGNOSTIC IMAGING  
ADVANCED IMAGING PROGRAM*

***MAGNETIC RESONANCE IMAGING  
FELLOWSHIP PROGRAM  
CATALOG***

Revised 8/11

# Magnetic Resonance Imaging Fellowship Program

## Program Objective

The Advanced Medical Imaging Program offers graduate Radiographers a unique opportunity to broaden their career alternatives. Students receive didactic and clinical education in state of the art advanced imaging techniques. Upon completion of the program, the student will have completed all clinical requirements for certification exam in Magnetic Resonance Imaging offered by the ARRT.

## Mission Statement

The Mission of the Cooper University Hospital Magnetic Resonance Fellowship Program is to provide didactic and clinical education to registered radiographers and to graduate competent Magnetic Resonance Imaging technologist. Graduates will be capable of performing a wide range of procedures in the field of Magnetic Resonance Imaging.

## Program Goals

The Program's mission is measured by the student reaching the following goals.

- 1.0 Provide an educational experience that will promote learner success by:
  - 1.1 Establishing equitable and advisory admission practices
  - 1.2 Providing appropriate instruction and educational support services.
  - 1.3 Providing occupational placement assistance.
- 2.0 The program will provide the employment community with graduates exhibiting accepted knowledge, practical skills and problem solving abilities to:
  - 2.1 Providing the student the skills necessary to produce quality diagnostic magnetic resonance images.
  - 2.2 Provide appropriate patient care
  - 2.3 Maintain a safe clinical environment.
  - 2.4 Exhibit effective communication
  - 2.5 Maintain ethical and professional values and standards.

The Program adheres to the following minimum standards:

1. Program graduates will be awarded certificates within 150% of the published program length.

## General Information

Classes are admitted in September and ends in May. Classes are always held at the Cooper University Hospital in Camden, New Jersey.

Didactic classes will be offered the first 4 months of the program. Clinical rotations will also begin in September and continue until the end of the nine month period. Approximately 150 hours will be dedicated to didactics and clinical rotations will total approximately 750 hours over the 9 month period.

## Admission Requirements

Admission requirements vary by Program. In general candidates for admission are limited to:

1. Radiographers holding a valid ARRT certificate in Radiography and where appropriate a valid license.
2. Student Radiographers with a graduation date prior to the start of a given class.
3. Other Radiologic Science practitioners having primary ARRT certification or qualifying for the ARRT examinations in the specialty area.
4. Some background in cross-sectional anatomy.
5. A minimum of a 3.0 GPA in Radiography school and college level courses.
6. Applicants will be required to participate in a shadow visit and an interview.

Application forms and other inquiries regarding this program should be addressed to:

Cooper University Hospital  
Advanced Imaging Program – MRI Fellowship  
One Cooper Plaza Dorrance 408 South  
Camden, New Jersey 08103  
Attention: Mary S. Tartaglione B.S., R.T.

Inquiries may be directed by phone (between 10AM and 3PM) Monday, Thursdays and Fridays at (856) 968-7268 or email: [tartaglione-mary@cooperhealth.edu](mailto:tartaglione-mary@cooperhealth.edu) or [www.cooperhealth.org](http://www.cooperhealth.org) and click on to Allied Health Education.

Please Note! The Advanced Imaging Program will admit qualified students regardless of race, color, sex, religion, national / ethnic origin, handicap or sexual orientation. All programs are available to all students enrolled within the Medical Radiography School. Education and admission policies, scholarship / loan programs and other school sponsored programs are administered without discrimination.

**Example of Course Sequence**

**First Semester**

Course #	Course Title	Semester Units	Clock Hours
MR 101	Introduction to MRI	4	48
MR 102	Cross Sectional Anatomy	4	48
MR 103	Clinical Education I	3	144
MR 104	Clinical Education II	3	144
MR 105	Patient Care & Pharmacology	.5	6
MR 203	Clinical Education III	3	144

**Second Semester**

Course #	Course Title	Semester Units	Clock Hours
MR 201	MR Pathology	4	48
MR 202	Physics, Procedures & Protocols	4	48
MR 204	Clinical Education IV	4	144-192
MR 305	Clinical Education V	4	144-192
MR 306	Clinical Education VI	4	144-192
MR 303	MRI Review	1.5	16

**Didactic Hours:**

1 unit = 1 hour per week for 12 weeks

**Clinical Hours**

.5 unit = 24 hours per week for 6 weeks

**Grades**

Final academic grades are based on classroom participation, attendance, performance on test materials and other course assignments. Grades are computed for each course and determined by the total accumulation of percentage points based on the following scale:

100-93 = A	82-78 = C
92-90 = B+	77-75 = D+
89-86 = B	74-70 = D
85-83 = C+	Below 70 = F

Students are required to maintain a "C" for all academic courses attempted.

MRI FELLOWSHIP COURSE DESCRIPTIONS  
2010-2011

MR-101: INTRODUCTION TO MRI

The fundamental principles of MRI safety for personnel, co-workers and patients; The basics of MRI equipment and terminology are introduced; An introduction to imaging parameters and the clinical application of MRI.

COREQUISITE(S): Cross Sectional Anatomy for MR, Patient Care & Pharmacology, Clinical Education I, II, III

MR-102:CROSS SECTIONAL ANATOMY FOR MR

Study of cross sectional anatomy as seen in axial, sagittal and coronal planes; Cross sectional anatomy of bony structures, muscular, vascular organs, central nervous system (brain and spine), and other structures of the head, musculoskeletal, cardiovascular, thorax, abdomen, and pelvis.

COREQUISITE(S): Introduction to MR, Patient Care & Pharmacology, Clinical Education I, II, III

MR-105: PATIENT CARE AND PHARMACOLOGY

Patient Assessment and screening, including vital signs and emergency treatment will be covered in this course. Basic concepts of pharmacology and pharmacokinetics will be discussed.

COREQUISITE(S): Introduction to MR, Cross Sectional Anatomy for MR, Clinical Education I.

MR-103: CLINICAL EDUCATION I

The student observes and participates in a limited fashion commensurate with their knowledge level. Participation occurs under direct supervision.

COREQUISITE(S): Introduction to MRI, Cross Sectional Anatomy for MR, Patient Care and Pharmacology.

MR-104:CLINICAL EDUCATION II

The student participates in patient care, setting parameters and protocols, and scanning under direct supervision. Participation commensurate with their knowledge level.

PREREQUISITE: Patient Care and Pharmacology.

COREQUISITE(S): Introduction to MRI, Cross Sectional Anatomy for MR.

MR-203: CLINICAL EDUCATION III

The student participates in patient care, setting parameters and protocols, and scanning under direct supervision. Participation commensurate with their knowledge level. Students are required to have completed head and neck requirements, and a portion of the required studies in musculoskeletal and abdomen categories.

COREQUISITE(S): Introduction to MRI, Cross Sectional Anatomy for MR

MR- 204: CLINICAL EDUCATION IV

The student participates in patient care, setting parameters and protocols, and scanning under direct supervision. Participation commensurate with their knowledge level. Students are required to have completed 100 repetitions(cumulative).

PREREQUISITE: Introduction to MR, Cross Sectional Anatomy, Clinical Education I-III.

COREQUISITE(S): MR Pathology, Physics, Procedures and Protocols

MR-201: MR PATHOLOGY

This course is designed to provide the student with different pathologies, artifacts and imaging techniques. Case studies and images of the pathologies will be used to reinforce the lectures.

PREREQUISITE: Introduction to MR, Cross Sectional Anatomy for MR, Patient Care and Pharmacology, Clinical Education I-III.

COREQUISITE: Physics, Procedures and Protocols; Clinical Education IV & V.

MR-202: PHYSICS, PROCEDURES, AND PROTOCOLS

Topics include but are not limited to Instrumentation, Magnetism, NMR Signal Production, Pulse Sequencing and Imaging Parameters/Options. Imaging techniques related to CNS, neck, thorax, musculoskeletal system and abdominopelvic regions. Specific clinical applications, coils, scan sequences, and protocols.

PREREQUISITE: Introduction to MR, Cross Sectional Anatomy for MR, Patient Care and Pharmacology, Clinical Education I – III.

COREQUISITE(S): MR Pathology, Clinical Education IV & V.

MR-305: CLINICAL EDUCATION V

The student participates in patient care, setting parameters and protocols, and scanning under direct supervision. Participation commensurate with their knowledge level. Students are required to have completed 120 repetitions at the end of Clinical Education V.

PREREQUISITE: Introduction to MR, Cross Sectional Anatomy for MR, Patient Care and Pharmacology, Clinical Education I-IV.

MR-306: CLINICAL EDUCATION VI

The student participates in patient care, setting parameters and protocols, and scanning under direct supervision. The student has completed all required studies in order to sit for the ARRT certification for MR.

PREREQUISITE: Introduction to MR, Cross Sectional Anatomy for MR, Patient Care and Pharmacology, MR Pathology, Physics, Procedures and Protocols. Clinical education I-V.

COREQUISITE(S): MRI Review Seminars

**MR-303: MRI REVIEW SEMINARS**

The student will review and prepare for the ARRT MR certification board.

**PREREQUISITE:** Introduction to MR, Cross Sectional Anatomy for MR, Patient Care and Pharmacology, MR Pathology, Physics, Procedures and Protocols. Clinical education I-V.

**COREQUISITE(S):** Clinical Education VI.

**Tuitions and Fees**

The following fee schedule shall apply:

Application fee:	\$35.00
Basic Tuition:	<b>\$4700.00 / course</b>
Installment fee:	\$30.00 / payment
Return check fee:	\$30.00
Deposit:	\$500.00, Non-refundable, but deductible from tuition
Late Fee:	\$35.00

Alternate payment schedules shall be distributed prior to and during orientation. Tuition not paid by the due date will be surcharged a late fee and student matriculation may be affected. Payments are accepted by credit or debit card, or money order made payable to: **School of Diagnostic Imaging**. Checks are no longer accepted for deposits or tuition payments.

**Refund Policy**

A student who voluntarily withdraws, is dismissed for failure to maintain satisfactory progress or is granted a leave of absence may be eligible for a tuition refund. The student must advise the Program, in writing, of their intention to withdraw and formally request a refund. The effective action date shall be the date the Program receives such notification. Deposits and fees are not refundable. The following schedule shall apply in all cases:

Withdrawal prior to the first class day.....	100% refund
Withdrawal first to second class week.....	80% refund
Withdrawal third to fourth class week.....	60% refund
Withdrawal fifth to sixth class week.....	40% refund
Withdrawal after sixth class week.....	0% refund

Students dismissed for violation of Program policy are NOT eligible for refunds!

**Financial Aid**

The Advanced Imaging Program does not qualify for Title IV financial aid. These programs may qualify for Veteran or other benefit programs. Financial aid questions to be directed to Sherri Glemser at 856-342-3277.

**Books**

Textbooks are pre-ordered for students through a medical book supplier. Students are responsible for the cost of all text and other books.

**Living Expenses**

Students must provide their own living expenses including accommodations, meals, parking and other related expenses.

**Uniforms**

Students are expected to provide their own uniforms for clinical activities. **Standard uniforms are suggested for all clinical experiences.**

**Program Attendance**

Attendance at all class sessions is required. Missed assignments, tests, etc. are the responsibility of the individual student. Attendance for class and clinical rotations are mandatory for successful completion of the program

**Conduct**

Since students directly reflect the image and policy of the Program, they are expected to convey a professional attitude to patients, peers and staff. Students are expected to conform to all the rules and regulations of a given clinical or academic environment.

## **MRI Safety**

Pregnancy policy for students applying for and enrolled in the program:

The following is from the ACR Guidance of Safe MRI practices:

Pregnant health care practitioners are permitted to work in and around the MR environment throughout all stages of their pregnancy. Acceptable activities include, but are not limited to, positioning, patients, scanning, archiving, injecting contrast material, and entering the MR scan room in response to an emergency. Although permitted to work in and around the MR environment, pregnant health care practitioners are requested not to remain within the MR scanner bore or within the MRI scan room during actual data acquisition or scanning.

The following are a list of potential safety issues associated with working in a MRI department:

Prospective applicants should be aware that pacemakers, metal objects, aneurysm clips, hearing aids, and other metal foreign bodies may pose a hazard. During the application process, these hazards will be reviewed and discussed with the prospective applicant.

## **Clinical Education**

Clinical education will begin in conjunction with classes. Clinical rotations for the first 12 weeks will be observation only. Clinical rotations for the observation period will be approximately 20 hours per week. Clinical rotations after the didactic portion of the program will be approximately 32 hours per week and may be completed during the day, evening or weekend hours.

The following Clinical Education sites may be available :

- Cooper University Hospital, Camden, NJ
- Cooper at Voorhees, Voorhees, NJ
- Kennedy Health System, Turnersville and Stratford, NJ
- Atlantic Medical Imaging, Cape May Court House, NJ
- Robert Wood Johnson Medical Center, Hamilton, NJ
- STAT Imaging, Marlton, NJ

The above listing is current as of this publication date.

## **Program Completion**

Students satisfactorily completing the entire program are awarded a certificate in Advanced Medical Imaging within the concentration. Satisfactory completion is defined as completion of all Program academic and financial obligations.

## **Other Considerations**

Applicants are advised that the American Registry of Radiologic Technologists (ARRT) administer certification examinations in Magnetic Resonance Imaging. For more specific information relative to certification examination requirements please directly contact:

The American Registry of Radiologic Technologists  
1255 Northland Drive  
St, Paul, MN 55120  
(601)687-0048

[www.arrt.org](http://www.arrt.org)

## **Notice**

The School of Diagnostic Imaging (Medical Radiography) reserves the right to change regulations, tuition, academic and clinical sites or course content described herein without prior notification. The provisions of this catalog are not to be regarded as an irrevocable contract between school and applicant.

Advanced Imaging Programs  
One Cooper Plaza, D-408 South  
Camden, NJ 08103  
Phone: 856-968-7268

**COOPER UNIVERSITY HOSPITAL  
SCHOOL OF DIAGNOSTIC IMAGING  
ADVANCED IMAGING PROGRAMS**

**MRI FELLOWSHIP**

**APPLICANT INSTRUCTIONS**

1. Read all enclosed materials.
2. Complete and return the following items:
  - A. Signed and completed application form
  - B. Non-refundable application fee of \$35.00
  - C. A copy of your ARRT credentials and /or NJ license
  - D. 3 recommendations
3. Please indicate, on your application, your choice of starting year
4. The application must include a day time phone number.
5. Seats are filled on a first come basis. Classes may fill before the dates listed below.
6. Below is a schedule of dates relative to the receipt of applications.  
For September session, all materials must be received by May 15<sup>th</sup>.
7. You will be notified, in writing, when we receive your completed application.  
Incomplete applications will be returned.
8. Return all application materials to:

Cooper University Hospital  
Advanced Imaging Programs  
One Cooper Plaza – Dorrance 408 South  
Camden, NJ 08103
9. Questions? (856) 968-7268 or tartaglione-mary@cooperhealth.edu



**Diagnostic Imaging Programs**  
**Advanced Imaging Programs**  
 One Cooper Plaza, D-408 South  
 Camden, NJ 08103  
 Phone: 856-968-7268

**ADMISSION APPLICATION**

**Application Fee: \$35.00**

**Please type or print in ink!**

I am applying for the MRI FELLOWSHIP Class starting: Sept., 20\_\_\_\_ (please specify yr.)

**PERSONAL INFORMATION (PRINT)**

Applicant Name \_\_\_\_\_  
 (Mr.)(Mrs.)(Ms.) \_\_\_\_\_  
Last
First
Middle Initial

- If the information needed to process this application is located under a different name, please place the name(s) in the space provided below.

\_\_\_\_\_

Mailing Address \_\_\_\_\_

City, State, Zip Code \_\_\_\_\_

Last 4 digits of SS# \_\_\_\_\_ Home Phone Number \_\_\_\_\_

Cell Phone Number \_\_\_\_\_

Email address \_\_\_\_\_

**EDUCATION INFORMATION**

List **all** colleges or other post- secondary institutions attended. Request each institution to forward an **official** transcript.

Institution Name	Dates Attended	Credit Hours	Degree

	Address	Year Graduated
School of Medical Radiography		
Name _____		
ARRT# _____		
NJ License # _____		
Please submit copy of each		

### EMPLOYMENT INFORMATION

Are you currently employed?  Yes  No

Please list your three most recent employment experiences.

Employer Name/ Address	Dates Employed	Employment Type	Health Related

I certify that the information given on this application is complete and correct to the best of my knowledge. I understand that I am responsible for arranging and forwarding official transcripts from all schools listed and that such transcripts shall become the property of Cooper University Hospital, School of Diagnostic Imaging and will not be returned to me or any other third party. I understand that my acceptance into the Fellowship Program is subject to verification of official records and that applicants will be disqualified for knowingly making false or inaccurate statements or for material omissions. I understand that this application is the initial step in the overall candidate process and in no way constitutes an agreement of acceptance.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Please mail completed form with application fee to:

**Cooper University Hospital  
Advanced Imaging Programs  
One Cooper Plaza- Dorrance 408 South  
Camden, NJ 08103**

Cooper Health System is committed to providing Equal Education and Employment Opportunity to all qualified persons regardless of their economic or social status and does not discriminate in any of its policies, programs or activities on the basis of sex, age, race, marital or parental status, disability or religious affiliation.



Diagnostic Imaging Programs
Advanced Imaging Programs
One Cooper Plaza, D-408 South
Camden, NJ 08103
Phone: 856-968-7268

Recommendation Request

To be completed by applicant (please print clearly):

Applicant Name: \_\_\_\_\_

Address: \_\_\_\_\_
\_\_\_\_\_

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Recommender:

Please complete and return this form as soon as possible. Please return to:

Cooper University Hospital
MRI Fellowship Program
Attn: Mary S. Tartaglione B.S., R.T.(R)
One Cooper Plaza, Dorrance 408 South
Camden, NJ 08103

All applicants are required to have recommendations by non-related individuals submitted prior to an interview. The recommender is asked to be as frank and honest as possible. A short letter of explanation may follow applicable comments. All responses provided will be maintained in strict confidence.

I have known the applicant for approximately \_\_\_\_\_ months/years. My relationship with the applicant is/was in the following capacity:

Employer\_\_\_ Supervisor\_\_\_ Teacher\_\_\_ Counselor\_\_\_ Clergy\_\_\_ Other (specify):

I have known her/him very well, \_\_\_ fairly well, \_\_\_ casually, \_\_\_\_\_.

What special strengths/assets does this applicant possess?

Does the applicant like to work with people? Give an example.

Do you think that this individual would be able to perform as an MRI technologist?  
Why or why not?

Relative to persons of similar backgrounds, education and professional interest, how would you rate this applicant regarding each of the listed characteristics? (Place an "X" in the column that would best describe the applicant.)

Characteristic	Above Average	Average	Below Average	Not Applicable
Academic Ability				
Written Communication				
Oral Communication				
Initiative & Motivation				
Assertiveness				
Cooperativeness				
Dependability				
Supervisor relations				
Peer relations				
Personal Appearance				
Integrity				
Maturity				

Other Comments:

Which of the following statements would apply to this applicant?

- Highly recommended
- Recommended
- Recommended, with reservation.
- Not able to recommend

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Recommender Signature and Date

Name (Print) \_\_\_\_\_

Business \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_