

Magnetic Resonance Imaging



What is the Magnetic Resonance Imaging program?

Magnetic resonance imaging (MRI) is the medical specialty that uses strong magnetic field and radio waves to create images of the body. The MRI technologist is a skilled professional that is qualified by education and experience to create images of the body. The MRI Program provides a comprehensive overview of MRI, including its historical development.

Concepts such as electricity and magnetism, image formation, and the factors affecting image are also covered. Magnetic resonance hardware, system operation, and advanced imaging techniques are also discussed. The clinical component is designed to provide students with a flexible clinical education experience, as well as assisting with completion of the American Registry of Radiologic Technologists' clinical education requirements for certification in MRI.

How is the curriculum designed?

The curriculum is divided into areas of study consisting of lecture, laboratory, and clinical experiences. Content areas of the curriculum include anatomy and physiology, professional ethics, MR safety and equipment operation, MR positioning and procedures, imaging techniques, and pathology.

What skills are needed to excel in this profession?

- Good critical thinking skills
- Good written and verbal communication skills
- The ability to work well with others and care for patients
- A professional attitude and appearance

Note to students: You are entering a profession that operates 24 hours a day, 7 days a week, and 365 days a year. Work shifts include day, evening, and night hours.

Where do MRI technologists work?

MRI technologists typically work in hospitals, private offices, surgical centers, oncology centers, and temporary, mobile imaging units.



Why should I choose HCC?

- HCC has a flexible clinical practicum, which provides students with exposure to a variety of clinical settings, learning experiences, and locations
- Graduates of HCC's MRI Program are eligible to sit for the American Registry of Radiologic Technologists (ARRT) certification exam in magnetic resonance
- The MRI Program focuses on the physics, theories, application, and instrumentation of magnetic resonance imaging equipment needed for the ARRT certification examination
- Course content includes imaging of the body areas in relation to their anatomical composition, pathology, and physiology, as well as image quality
- Lecture courses for the MRI Program are provided online or in an online/lecture hybrid format

For more information about HCC graduation rates, the median debt of students who completed the program, and other important information, visit www.hagerstowncc.edu/medical-imaging.

PROGRAM OPTIONS

-  Certificate, Magnetic Resonance Imaging

CAREER OUTLOOK

MEDIAN SALARY

\$61K

for Radiologic and MRI Technologists

EMPLOYMENT



264,000 jobs in the U.S.
6% growth in the next ten years

About 16,600 openings for radiologic and MRI technologists are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

(source: www.bls.gov/ooh)

What are the admission requirements?

Students need to apply to the college, submit official transcripts, current resume or curriculum vitae, and also apply to the MRI Program by August 15 for the fall semester and December 15 for the spring semester. The program is open to current ARRT certified technologists and students enrolled in the sophomore year of a JRCERT accredited program. All certified technologists must submit a copy of their current ARRT certification card and current Maryland State license, along with a current resumé/curriculum vitae to the Office of Admissions and Enrollment Management. Admission requirements for the clinical education component of the MRI Program include satisfactory completion of a health form and immunizations, drug screen, background check through fingerprinting, and a valid American Heart Association Healthcare Provider card.

Students who have been out of the patient care environment for more than two years may be considered for admission upon successful completion of Patient Care for Advanced Medical Imagers (RAD-213) with a minimum grade of 75 percent or higher.

What are the program requirements?

All magnetic resonance imaging students must:

1. Receive a minimum grade of 75 percent in each magnetic resonance imaging course.
2. Meet program competency requirements.
3. Enrollment in RAD 224 must be within 12 months of completing RAD 222.
4. Students have two years to complete education and clinical requirements in order to be eligible to submit an application to ARRT.
5. Students who receive a final mark of unsatisfactory in the clinical laboratory or clinical experience, despite a passing theory grade, will not be permitted to progress in the magnetic resonance imaging program and will receive a final grade of "F" for the course and are not eligible for readmission.

Students who do not meet program, course, technical, health and radiation standards that result in termination from the MRI Program by the College, are not eligible for readmission. This includes students who cannot meet safety standards, and students who violate the College's Honor Code and Standards of Conduct, the Radiography Programs Standards of Conduct, and the American Registry of Radiologic Technologists Standards of Ethics.

How long will it take me to complete this program?

On average, it takes five semesters to complete this program. A grade of C or higher is required in each course to progress to next semester. Students enrolled in the MRI Program are required to complete a minimum of 180 clinical education hours each semester.

Do the instructors have experience in MRI?

HCC instructors are ARRT certified in MR imaging and have clinical experience as MR technologists.

Will HCC provide the clinical sites for the student?

All students enrolled in the MRI Program will be assigned to one of the clinical sites affiliated with HCC.

How many days or nights will the student have to attend lecture classes at HCC?

The majority of courses in the MRI Program are hybrid-based. Some travel to the main HCC campus is required.

What are some of the safety concerns with MRI?

Go to www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm135362.htm.

Additional Information

Additional information on program requirements including criminal background checks, drug screening, clinical site placement, readmission to the MRI Program, and transferring from another college or MRI Program can be found at www.hagerstowncc.edu/medical-imaging.

Vaccine Requirements

Several immunizations are required as part of your health documentation, including: HEP B 3 vaccine series AND Positive immunity titer, QuantiFERON®-TB, Tetanus (Tdap) within last 10 years, Varicella 2 vaccine series AND positive immunity titer, MMR 2 vaccine series AND positive immunity titer, and the Flu vaccine (fall and spring), and the COVID-19 vaccine.

Since many individuals fail to maintain immunity over time, you may be required to repeat vaccination series/ receive a booster in order to demonstrate positive immunity. Positive immunity titers are required to proceed with Clinical or Externship rotations in all Health Sciences Programs. It is the student's responsibility to verify immunity prior to the start of the program and take the necessary steps to ensure positive immunity by the health documentation deadline provided to each cohort.

Other Requirements

An American Heart Association (AHA) Basic Life Support is required for healthcare providers (the AHA version is required for your licensure exams).

Certificate

Magnetic Resonance Imaging

| Program Requirements | | 16 Credits |
|----------------------|-------------------------------------|------------|
| RAD 212 | Cross-Sectional Anatomy | 3 |
| RAD 215 | Pathology for Imaging Sciences..... | 3 |
| RAD 222 | Principles of MR Imaging..... | 4 |
| RAD 224 | MRI Clinical Practicum I..... | 3 |
| RAD 224A | MRI Clinical Practicum II | 3 |

Certificate Requirement 16

Technical Standards

There are technical standards and skill requirements which students are expected to possess and demonstrate in order to be successful in this program. More information on these standards can be found at www.hagerstowncc.edu/medical-imaging.

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