

Master of Science in Bioimaging



Program Highlights

- Students will have the opportunity to learn about all aspects of imaging, from the theory underlying pulse sequencing and image acquisition to post-acquisition processing of images.
- Students in the Bioimaging program benefit from hands-on experience with 1.5 and 3.0T MRI, which will ultimately qualify them for positions in the healthcare and biomedical instrumentation industries, academia, and in a wide variety of private and government research centers.
- Courses are taught using a combination of lecture and laboratory formats.
- Students can choose from two pathways to complete the degree:
 - The **Clinical Path** provides students with the didactic and ethics course requirements necessary to sit for the American Registry of Radiologic Technologies (AART) advanced certification exam. This certification allows an individual to enter the bioimaging field as a Registered MRI Technologist.
 - The **Research Path** provides students with a research-based focus, culminating in a thesis project that prepares the individual for entry into the broader fields of academia and industry.
- The program can be completed in as little as one year (four semesters) or as many as five years, depending upon the needs and desires of the individual student.
- MS degree with either a research thesis (research path) or clinical internship and practicum (clinical path) is awarded by the School of Medicine.
- Visit us at www.bumc.bu.edu/mbi.

Bioimaging Program

The Master of Science in Bioimaging is designed to fill a rapidly growing need for individuals who possess advanced and broad knowledge of the imaging methodologies used in medicine and medical research. Graduates of this program qualify for positions in the healthcare, biomedical instrumentation industries, academia, and in a wide variety of private and government research centers.

The program requires a minimum of 36 credit hours of graduate coursework. It is designed so that it can be completed in as little as one calendar year (September through August) or as many as five years, depending upon the needs or desires of the individual student. Many of the courses are given in the late afternoon or early evening hours in order to accommodate students who are working. In addition, many of the courses allow students to attend lectures remotely via internet conferencing software in order to accommodate students who have difficulty accessing campus.

Curriculum

Clinical Path

Fall Semester	Credits
Bioimaging Foundations	4 credits
Magnetic Resonance: Principles, Methods and Applications	4 credits
Radiation, Protection, Safety and Ethics	2 credits
Statistical Analysis of Neuroimaging Data	2 credits
Sectional Anatomy for Imaging Professionals	2 credits
Thesis and Practicum Design	2 credits

Spring Semester	Credits
Bioimaging Theory & Image Processing	4 credits
Methods of Functional Imaging of the Brain	2 credits
Clinical & MR Pathophysiology	4 credits
Clinical Internship	4 credits

Summer I	Credits
Clinical Internship	4 credits

Summer II	Credits
Bioimaging Practicum	2 credits

Research Path

Fall Semester	Credits
Bioimaging Foundations	4 credits
Magnetic Resonance: Principles, Methods and Applications	4 credits
Radiation, Protection, Safety and Ethics	2 credits
Statistical Analysis of Neuroimaging Data	2 credits
Sectional Anatomy for Imaging Professionals	2 credits
Thesis and Practicum Design	2 credits

Spring Semester	Credits
Bioimaging Theory & Image Processing	4 credits
Methods of Functional Imaging of the Brain	2 credits
Special Topics in Bioimaging	2 credits

Spring Semester (cont.)	Credits
Professional Skills in Bioimaging	2 credits
Directed Studies in Bioimaging	2 credits
Thesis Research	2 credits

Summer I	Credits
Thesis Research	2 credits
Directed Studies in Bioimaging	2 credits

Summer II	Credits
Thesis Research	2 credits

Admissions Criteria

In order to be considered for admission to this program, applicants are required to have a bachelor's degree from an accredited university. Past and current students have entered the program with undergraduate degrees in the basic, biological, physical, computer or social/behavioral sciences, though a few have come with backgrounds in other areas and have been quite successful.

We recommend a minimum GPA of about 3.0.

We also require that prospective students submit test scores from either the Graduate Record Examination (GRE) or Medical College Admission Test (MCAT).

Prospective students whose native language is not English must complete the TOEFL exam.

We offer rolling admission but recommend that prospective applicants submit completed applications by April 1 for Fall (September) admissions and before November 1 for Spring (January) admissions. Applications received after these dates will be considered pending available space.

In order to be considered for admission, a completed application must be submitted. A completed application consists of the application, a personal statement, three letters of recommendation, and official transcripts for all colleges and universities attended.

To apply to the program, please visit bu.edu/gms/admissions.

Tuition, Financial Aid and Student Resources

For the most up-to-date information on tuition and fees, please visit www.bumc.bu.edu/gms/students/financing-options. The Financial Aid Office at Boston University School of Medicine is available to assist students in identifying sources of financial support, including subsidized and unsubsidized student loans. A limited number of scholarships are awarded each year to highly qualified students.

The BU Office of Housing Resources provides information regarding housing, transportation, and Boston neighborhoods. For more details, visit www.bumc.bu.edu/ohr.

Contact

For more information, please contact:

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