

BIOMEDICAL IMAGING SCIENCE CERTIFICATE

Biomedical Imaging is a critical area of research with far reaching scientific and translational opportunities in several areas including: developmental sciences, oncology, genetics, pharmacology, neuroscience, and biomedical informatics. The broader field of biomedical imaging includes multiple sub-disciplines designed to enhance knowledge of how human systems are structured and function.

The Certificate will leverage the exceptional resources offered by the UNC Biomedical Research Imaging Center, both in terms of faculty expertise as well as imaging equipment infrastructure, to provide students with a unique opportunity to learn broadly about the biomedical imaging sciences, as well as to select a specific imaging modality for which to receive training in image acquisition, analysis, and statistics as well as artificial intelligence in medical Imaging.

A distinctive features of the Certificate program is the hands-on approach. Students will gain an understanding of how different imaging modalities function, including both pre- and clinical imaging systems.

Course Requirements

Code	Title	Hours
Core Courses		
BMME 796	Seminar in Biomedical Imaging Science	3
Electives		
Students are required to take a total of 6 credit hours of electives.		6
Minimum Hours		9

Code	Title	Hours
Electives		
BIOS 772	Statistical Analysis of MRI Images	3
BMME 561	Introduction to Medical Imaging	3
COMP 560	Artificial Intelligence	3
PSYC 795	Functional Magnetic Resonance Imaging	3
BMME 565	Biomedical Instrumentation I	4

Non-Course Certificate Requirements

- Attendance at Biomedical Research Imaging Center symposia and workshops.
- Practicum placement for research training in an on-campus laboratory utilizing biomedical imaging techniques.