

Imaging Informatics (II) Curriculum - PhD \geq 55 hours (inclusive of the MS hours)

Biomedical Informatics Core:(12 hours)

BMIG 5011 Introduction to Biomedical Informatics I and lab (4 hours)

BMIG 5012 Introduction to Biomedical Informatics II and lab (4 hours)

BMIG 5010 Project Rotation in Biomedical Informatics (2 hours)*

*two rotations required for the core for a total of 4 credit hours

Background necessary for research area(\geq 6 hours PhD)

Imaging Informatics students need foundational courses in both the biological and computational sciences. Necessary topics differ according to the research area. Examples are listed below.

(1) Biological sciences

PHYO 5013 General Physiology (or equivalent)

BMIG 5014 Anatomy for Imaging (or equivalent)

(2) Computational sciences

IFSC 7320 Database Systems and Information Architecture

IFSC 7370 Big Data (includes no-SQL Databases),

Mathematical Programming

Specialty Track Courses:(\geq 7 hours, PhD)

BMIG 5113 Clinical Imaging Informatics (3 hours)

BMIG 5017 Clinical Data Standards (1 hour)

BMIG 6210 Research Imaging Informatics (3 hours)

Research Methods and Conduct:(\geq 28 hours, PhD)

PCOL 5211 – 5241 Scientific Communication and Ethics (MS 1, PhD 4 semesters, 1 credit hour each)

BMIG 5800 Thesis (6 hours MS)

BMIG 6800 Dissertation research (\geq 18 hours PhD)

BMIG 6215 Research (0 hours MS, 0-6 hours PhD)

BIOM 5190 Research and Application Seminar (0 hour MS, 3 hours PhD)

Free Electives:(\geq 2 hours, PhD)

Chosen based on need to support Masters or doctoral research. This may include course listed below.

BMIG 5015 Introduction to Biological Network Analysis (1 hour)

BMIG 6220 Neuroimaging and Connectomics (3 hours)