General Medical Physics Electives
(all three tracks, if not take as required class)

- HSCI 590 Special Topics (in Medical Physics)
- HSCI 534 Applied Health Physics
- HSCI 572 Radiation Oncology Physics
- HSCI 590R Radiation Oncology Physics Laboratory I
- HSCI 590M Magnetic Resonance Spectroscopy
- AT 572 Human Error
- NUPH 530 Applied Nuclear Pharmacy
- NUPH 550 Introduction to PET
- CHM 333 Principles of Biochemistry
- CS 314 Numerical Methods
- BIOL 415 Introduction To Molecular Biology
- HK 445 Principles of Epidemiology
- MA 527 Advanced Mathematics For Engineers And Physicists I
- MA 416 Probability
- BIOL 516 Molecular Biology of Cancer
- STAT 512 Applied Regression Analysis (if not taken as part of core)
- PHYS 360 Quantum Mechanics
- PHYS 550 Introduction to Quantum Mechanics
- PHYS 556 Introductory Nuclear Physics
- PHYS 564 Introduction To Elements Particle Physics I
- PHYS 565 Introduction To Elementary Particle Physics II
- PHYS 580 Computational Physics

Optical Imaging Electives

- ECE513 Diffraction, Fourier Optics and Imaging
- ECE552 Introduction to Lasers
- BME553 Introduction to Biomedical Optics
- BME959Y Light-tissue interaction for tissue spectroscopy/imaging

MRI Electives

- BME595 Functional MRI Applications Laboratory Module
- BME695R Magnetic Resonance Imaging
- CHM 528 Principles and Practice of NMR
- CHM 615 Principles of NMR Spectroscopy
- CHM 616 Advanced Experimental Nuclear Magnetic Resonance Spectroscopy
Medical Physics Graduate Program
Electives

Nuclear Medicine Electives

- MCMP 407 Medicinal Chemistry and Molecular Pharmacology I
- NUPH 412 Medical Diagnostic Imaging I
- NUPH 413 Medical Diagnostic Imaging II
- NUPH 530 Applied Nuclear Pharmacy
- CHM 640 Advanced Inorganic Chemistry
- CHM 648 Bioinorganic Chemistry
- CHM 647 Transition Metal and Organometallic Chemistry

Imaging/Signal Processing Electives

- ECE 637 Digital Image Processing
- ECE 641 Digital Image Processing II
- ECE 438 Digital Signal Processing with Applications

Research Electives

- HSCI 590 independent research project (3 credit hours max)
- HSCI 698 MS Thesis for students pursuing the MS Thesis track

Note: Only 6 credit hours of 300 and 400 levels courses will count toward the student’s graduate degree.